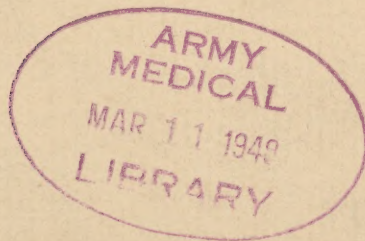


W. E. Orr
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ARMY SERVICE FORCES

**ANNUAL REPORT
FOR THE FISCAL YEAR 1944**



4732



ARMY SERVICE FORCES
OFFICE OF THE COMMANDING GENERAL
WASHINGTON 25, D. C.



15 November 1944

TO: THE UNDER SECRETARY OF WAR
THE CHIEF OF STAFF

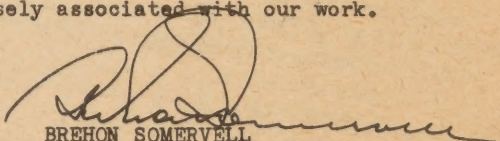
Subject: Annual Report of the Army Service Forces for
the Fiscal Year Ending 30 June 1944.

1. I am transmitting herewith the annual report of the
Army Service Forces for the fiscal year 1944.

2. The primary job of the Army Service Forces is to
procure the supplies for America's armies and to transport
both men and supplies to the fighting fronts of the world.
It follows that the Army Service Forces constitute the iron
link between industrial America and her fighting men.
This report therefore mirrors not only the course of great
campaigns overseas but the whole mighty industrial effort
of this nation. That effort, I believe, is unmatched in
the history of nations.

3. To the Army Service Forces fall also many activities
promoting the welfare of this country's soldiers. Never has
an army been provided with so many services - services which
not only increase the striking power of our fighting forces
but also help cement the ties which bind the uniformed man
in the service with the members of his family who furnish him
with the tools of war.

4. The report contains a short summary for general use
as well as a longer and more detailed account for use in the
War Department and by others closely associated with our work.


BREHON SOMERVELL
Lieutenant General
Commanding.

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THE ARMY SERVICE FORCES

REPORT FOR FISCAL YEAR 1944

This war, more truly than any war the American people have yet had to fight, has been a war of supply, a war requiring the management of enterprises far more extensive, diverse, and complex than any in history. It is a war we are fighting at great distances from our own shores, in extremes of climate, and in many strange and varying lands. But that challenge has been one which has brought forth and matured our strongest national characteristics. The challenge of this conflict has not been alone to our skill and courage on the battlefield. It has been also a challenge to our energy, ingenuity and resourcefulness at home. By now it can be said fairly that the challenge has been met.

Characteristically, we met the needs of the kind of war we had to fight with a mighty flood of production which has at last given us superiority in material wherever we have been able to supply it. Our tremendous supply of equipment and our ability to deliver it where needed have given our field forces a mobility and fire power that have shaped our tactics - for ours are the tactics of the machine and of a people who know how to use machines. We practice the economical use of our manpower in favor of the generous use of our material resources.

In the same characteristic manner, our strategy has been shaped by our ability to transmit our vast economic power to the distant theatres where it could be employed with deadly effectiveness against the enemy. More and more we are capitalizing on these American characteristics. We are forcing the issue in the American way.

From the Rhine to the Philippines we and our allies now hold the initiative on every front. The year saw both the fury and tempo of allied attacks rise sharply. The Japanese were driven from the Aleutians. In the south our advance across the Pacific lead to the capture of Tarawa, Makin, Kwajalein, Eniwetok, New Georgia, Kolombangara, and Bougainville. Our attacks swept up the coast of New Guinea with the rapid reduction of the Japanese garrisons at Mubo, Salamaua, Lae, Finschhafen, on into Cape Gloucester in New Britain. Landings at Saidor,

in the Admiralties, at Hollandia and Aitape, on Biak, and finally at Saipan not only placed us in a position to strike at more vital objectives in succeeding months but laid upon us the necessity for great exertions in preparing these places as bases for future assaults.

In the Mediterranean Allied forces of Americans, British, Canadian, and French soldiers moved from North Africa into Fortress Europe, advanced after heavy fighting across Sicily, up the Italian peninsula to the Arno. Rome fell; Italy, one of the three major Axis partners, was effectively out of the war.

The Russian Army, heavily supplied with American equipment, made history at Orel, Kharkov, Bryansk, Stalino, Kiev, Smolensk, Sevastopol, Leningrad, and at a thousand other places.

After months of preparation, the brilliant success of the allied landings in western Europe was an augury of the skillful and overpowering advance that was to be made later to the borders of the German Reich.

By the time this report appears there will be nearly five million U. S. troops overseas. In the last war it was considered a tremendous accomplishment to move and supply two million men in France, as indeed it was. Yet today the job is being done with forces two and a half times as large and scattered over every continent and on the islands of every ocean. No country has ever fought a major war at the distances at which we have fought this one. While it is only 3,000 miles from New York to the ports of England, it is 4,200 miles to Naples, 4,600 to Murmansk, and 13,000 miles to Basra via Cape Town, or 12,000 miles to Calcutta. Now that the Mediterranean route can be used, the distance from New York to Basra is 8,200 miles, and to Calcutta nearly 10,000 miles. It is another 1,200 miles to Chungking. From San Francisco to Brisbane it is 6,200 miles, and nearly 14,000 miles to Calcutta. In June, 1944, the average turnaround time for ships from New York to the United Kingdom was 76 days, to the Persian Gulf 125 days, and to Calcutta 160 days. From San Francisco to the Southwest Pacific the average turnaround time was 129 days.

The supplies required per man moved overseas have increased from one ton in the last war to five tons in this war; one soldier's continuing maintenance requires one ton per month compared with a half ton per month in 1917-18. The equipment today is more complex, the conditions under which it is used are infinitely more varied. During the period covered by this report we have also furnished enormous quantities of military supplies to the United Kingdom, and completely equipped and continued to supply a large French army. Meantime we have provided our other allies with great quantities of weapons and equipment with which to make war on the common foe. To Russia alone in the past fiscal year we supplied 115,000 trucks and 8,000 combat vehicles, including 2,000 tanks -- a total of 1.5 billion dollars worth of supplies and equipment.

The demands on the Army Service Forces grew from day to day. They varied with changes in strategic and tactical concepts, with decisions regarding specific operations. Yet in spite of the varying and growing load, we maintained a constant and successful pressure for the improvement of management and management techniques. We tested and put into operation methods and procedures for the conduct of the business side of the War Department that have greatly increased efficiency and capacity, reduced both man hours and costs, improved the quality of arms and supplies, raised the effectiveness of service troops and other service personnel, introduced a new and more humane relationship between management and personnel in the Army, and speeded the flow of munitions and supplies to all fronts.

The War Effort and the Home Front

Although notable progress was made by the Army Service Forces in the past year, and although the accomplishment of American production was outstanding, much remains to be done before we celebrate victory. As this report is written, our troops abroad are short of heavy artillery, heavy ammunition, heavy trucks, heavy duty tires, and heavy tractors -- items that they vitally need in daily battle. Production of the 155mm. gun from January to June, 1944, was only 62 per cent of schedules.

What we have done in the past must not divert us for a moment from the hard realities of present production problems. We cannot relax yet.

WHAT THE ARMY SERVICE FORCES DO

One of the purposes of this report is to reflect the nation's war effort so that great achievement may be understood not only by those in uniform but also by those in the mills and in the mines, in the offices and on the farms of America. The Army Service Forces are, of course, only one of several agencies through which the total of American war production has been transmitted to our fighting forces and those of our allies. Of the 98 billion dollars spent for the war in the fiscal year just ended, Army expenditures reached 52 billion dollars (Service Forces 39 billion and the Air Forces 13 billion); the Navy, 30 billion dollars; the Maritime Commission, 7.5 billion dollars; and other agencies some 8 billion dollars.

Because the job of the Army Service Forces is of necessity widespread and complicated, it is worthwhile here to recall what they do and how they do it. The Army Service Forces was originally set up as the Services of Supply on 9 March, 1942, as part of the general reorganization of the War Department. The name was changed to the Army Service Forces on 12 March 1943. As presently constituted the U. S. Army can be thought of as falling under four major groupings: 1) the tactical commands -- such as the European Theatre, the Mediterranean Theatre or the Southwest Pacific area; 2) the Army Ground Forces who train tactical troops for ground combat; 3) the Army Air Forces who take care of their own training and all aircraft procurement; 4) the Army Service Forces which in addition to their tasks of procurement, supply and transportation have inherited many other, and sometimes unrelated functions of the War Department.

The Army Service Forces include the Quartermaster Corps, the Ordnance Department, the Medical Department, the Signal Corps, the Corps of Engineers, the Chemical Warfare Service, the Transportation Corps, the Adjutant General's Office, the Judge Advocate General's Office, the Provost Marshal General's

MAJOR MILITARY EVENTS OVERSEAS

FISCAL YEAR 1944

Aug '43
1st Strong USAAF Raid

Jan '44
9th AF Drops 22,000 Tons

Mar '44
1st 2,000 Plane Raid (U.S.)

Apr '44
AAF-RAF Drop 81,400 Tons

May '44
AAF-RAF Drop 118,940 Tons

Jun '44
6-Landing in NORMANDY

26-Capture of CHERBOURG

Sep '43
9-Landing At SALERNO

Jan '44
22-Landing At ANZIO

May '44
11-Start of ITALIAN Offensive

Jun '44
4-Capture of ROME

Jul '43
9-Landing in SICILY

Aug '43
17-Completed SICILIAN Campaign

Jan '44
27-Siege of Leningrad Raised

Sep '43
25-Reds Recapture SMOLENSK, Cross DNIEPER

Jul '43
12-Russian Summer Campaign Starts Near DREL

Nov '43
6-Russian Winter Campaign Starts, KIEV Recaptured

Dec '43
Red Offensive On 185 M. Front

Feb '44
19-Reds Enter BESSARABIA

Apr '44
8-Reds Reach CZECH Border

Aug '43
30-Reds Reach SEA OF AZOV

Nov '43
1-Reds Isolate CRIMEA

May '44
10-SEVASTOPOL Recaptured CRIMEA Liberated

Mar '44
5-Allied Airborne Troops Land 160 M. Behind Japs in N. BURMA

Apr '44
20-Jap Offensive in INDIA Stopped

May '44
17-Allied Offensive Reaches MYITKYINA

Jun '44
23-Russian Summer Campaign Starts On N. Central Front

Jun '44
16-First B-29 Raid YAWATA

Aug '43
15-Occupation of KISKA

Feb '44
18-Assault on ENIWETOK

Feb '44
1-Assault On KWAJALEIN

Nov '43
21-Assault On TARAWA And MAKIN

Jun '44
15-Invasion of SAIPAN

19, 20-Battle of PHILIPPINE SEA

Jul '43
1-Capture of VIRU On NEW GEORGIA

Aug '43
5-Capture of MUMDA On NEW GEORGIA

Oct '43
6-Occupy VILA On KOLOMBANGARI

Nov '43
1-Landing At EMPRESS AUGUSTA BAY On BOUGAINVILLE

May '44
27-Landing On BIAK

Apr '44
22-Landings At HOLLANDIA And AITAPE

Feb '44
29-Landing in ADMIRALTIES

Jan '44
2-Landing At SAIDOR

Sep '43
11-Capture of SALAMAU

16-Capture of LAE

Oct '43
2-Capture of FINSCHHAFEN

Dec '43
26-Landing At CAPE GLOUCESTER

Office, the Corps of Chaplains, the Finance Department, the National Guard Bureau, the Executive for Reserve and R.O.T.C. Affairs, certain staff agencies, and eleven Service Commands. All of these together have done the work of the Army Service Forces -- purchased or manufactured supplies, trained supply and service troops, stored and issued supplies, constructed Army installations, operated the communications systems, run the hospitals, paid the Army's bills, moved the soldiers and their equipment, given the soldier a church, run the corner drug store of the Army -- the post exchange, delivered the mail, provided motion pictures and other entertainment, and operated the facilities on posts where all ground troops have been stationed and trained in the United States. The job of the Army Service Forces has never lacked variety, and has never grown stale

On one side of their job, the major responsibilities of the Army Service Forces come under the general headings of Supply, Procurement, and Transportation. For purposes of discussion these three activities must be dealt with separately, but in actual practice each is a phase of the single gigantic operation of getting the goods and services from a mobilized industrial front to the fighting fronts all over the world. If General Eisenhower could say on D-day that he had everything he needed, then there is scarcely an American worker in industry or agriculture who cannot say, "I helped to get it there."

Long before supplies reach their overseas destination and are brought to bear against the enemy, troops must have equipment and services during training. Supplies must be accumulated, stored, and then shipped to posts in the United States or to ports of embarkation.

The days of training with pipe imitations of artillery pieces are gone. While some items of equipment must still be rationed for training, their number is constantly declining. During the fiscal year 1944, increased production from American industry made it possible to reduce the rationed list from 695 to 343 items. This 50 per cent reduction included the carbine, the M-1 rifle, and automotive vehicles. Troops overseas, of course, have received their full allowances of equipment and supplies.

Officially the work of the Army Service Forces is done when supplies are loaded on ships at a United States port and the cargo delivered to overseas ports. The unloading of the vessel, its return to the United States, the storage of supplies overseas, the distribution of supplies to troop units, the operation of Army installations overseas, the overseas medical service, communications within the theatre, construction activities, pay of the troops, and all other jobs the Army Service Forces do in the United States are performed by the supply and service organizations of the theatre commanders. In large measure, the overseas supply and administrative system has been modeled on that of the Army Service Forces. More than that, the theatre is dependent upon the equipment it receives from the United States and upon the supply and service personnel trained by the Army Service Forces for overseas assignment.

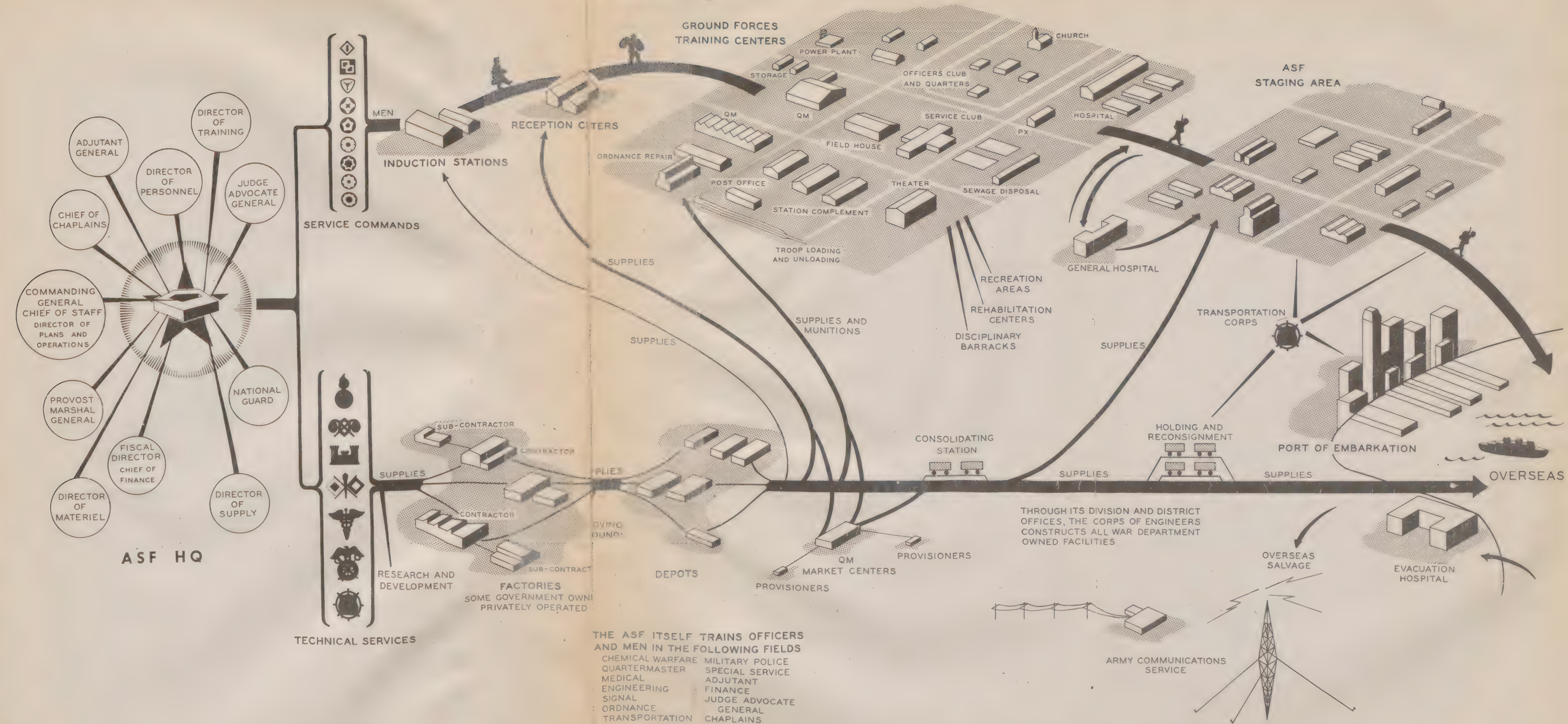
In consequence, the informal relations between the Army Service Forces in the United States and the supply forces overseas are very close. The Army Service Forces must be prepared at all times to provide the theatre commander with the answers to his logistical needs.

Inventories

Supply means more than simply providing the soldier with his clothing, equipment, and weapons. It means guaranteeing that the soldier has what he needs at any time he may need it. When a shoe wears out, a replacement pair must be there for him to put on. When his rifle is lost in combat, he can't wait for another one to be shipped out from the United States. When a tank is lost in an amphibious assault, the crew can't just sit on the beach until a new tank arrives from a port of embarkation.

Continuous supply is a problem in distribution -- distribution in a system subject to the sudden and unpredictable changes that take place every hour of battle. The answer familiar to all American businessmen is adequate inventories

THE WORK OF THE ARMY SERVICE FORCES



of equipment and other items at various points in the distribution system. For most overseas theatres, the Army Service Forces endeavor to provide an inventory equal to the distribution requirements of sixty days. It was not always possible, however, to build the supply to that level. When inventories break down, there are interruptions in supply. That lesson is known to manufacturers and distributors of civilian goods. It is more true in the Army in the distribution of military supplies because of the possible erratic nature of the demand and the difficulties inherent in the military transportation system.

For that reason, the Army Service Forces must include inventory requirements in its procurement program, and in its overseas shipping program. Adequate control of these inventories is the key to the production - distribution system, and on this control depends its success or failure.

Spare Parts

Another special problem of supply is spare parts. Of some one million different items purchased by the Army Service Forces, about 800,000 are spare parts. On a rifle, the trigger mechanism may wear out or be broken. It is not necessary to throw the whole rifle away -- a new trigger assembly may make it as good as new. Because a radio tube wears out, we do not throw away the radio -- we buy a new tube. Spark plugs may have to be replaced in a truck motor, brakes relined, batteries replaced. With the growing age and use of equipment, the spare parts problems of Army supply multiply rapidly.

Yet no problem as a whole has been more vexatious than meeting spare parts requirements. Indeed, it is incorrect to speak of a spare parts problem -- it is several hundred thousand problems. The first consideration is to determine for every piece of equipment the parts which are subject to the most wear, and the rate of replacement. For every piece of automotive equipment purchased last year, the Army Service Forces bought another half of the piece in spare parts. If the part is simple, or easily worn out, such a replacement part is packed with the original item and the individual soldier instructed in how to make the

change. If replacement is a major mechanical job, such as providing new piston rings or new connecting rods, then the spare parts must be ready in the maintenance shop.

Once spare parts are purchased in ample quantities, their storage and distribution become a major problem. Spare parts have been bought in large quantities. Yet there are continual reports from overseas and within the United States of individual spare parts shortages. It is doubtful whether all the spare parts to prevent any shortages any place any time can ever be procured.

The Changing Needs of War

Flexibility in the supply operation is essential to the conduct of war on a world scale. Shifts in the strategic situation may throw out vast programs deemed necessary in an earlier period and create new needs of the highest urgency. Theatre commanders on the basis of field experience may suddenly require entirely new types of equipment or may find that requirements for certain types of weapons have been underestimated. However careful the planning, however efficient the deliveries, emergencies inevitably arise monthly and weekly, even daily and hourly. The Army Service Forces must stand ready to meet those emergencies at all times.

A good illustration of the changing needs of war, and the problems they create, is provided by the heavy artillery and heavy ammunition programs. The original production plans for heavy artillery and ammunition were revised downward in November 1942 and again in February 1943. Field commanders and staff planners believed that mobile warfare tactics would reduce the requirements for heavy artillery battalions. There was also some doubt about the ability to move heavy artillery equipment through the jungles of the Pacific islands. In view of this attitude toward these weapons, it then seemed prudent to give preference to other uses of our limited quantity of steel.

Early in the calendar year 1944, however, it became evident that heavy artillery was destined to play a far larger role than had been anticipated. Effective use of the 155mm. gun in the North African campaign and in the Pacific

against the Japanese increased the demands for this weapon from theatre commanders. Experience on the Italian front during the winter of 1943-44 showed that expenditures of heavy artillery ammunition had been underestimated. For instance, in the last half of February, and again in the last half of March, the average number of rounds of 155mm. ammunition fired on the Italian front was twice the projected average rate of fire used in the computation of ammunition requirements. The same was true for other heavy artillery pieces such as the 4.5-inch gun and the 8-inch howitzer. Large rates of ammunition expenditure meant in turn not only an increase in ammunition needs but also an increase in the need for gun barrels, since the barrel of an artillery piece must be replaced after a certain number of rounds.

This emergency had to be met at several levels. The number of heavy artillery battalions in the Army was increased 25 per cent. The needs for certain types of pieces were doubled. Production schedules were then upped all along the line.

Under the new production programs established in May 1944, monthly delivery of tubes for the 155mm. gun were set at three times March deliveries. Monthly production of new 155's was also fixed at three times March deliveries. In the case of the 8-inch howitzer, the production program on tubes jumped seven times. Required production of ammunition was increased several times -- 8-inch howitzer ammunition was boosted to 15 times the March deliveries. Meantime the capacity of smokeless powder plants had to be increased 50 per cent. Since current capacity was not being entirely used, all powder plants were stepped up to full capacity operation.

To achieve the expanded heavy artillery and ammunition programs, new facilities were authorized for all types of weapons. The War Production Board gave top priority rating to the Army Service Forces for these programs. The major expansion problem was in forging and machining equipment, which was produced by only a few companies. New plants could be brought into the heavy artillery program only as rapidly as machinery was produced and installed.

The requirements for heavy quality steel for the ammunition program meant an increase in deliveries by producers to War Department contractors of 450 per cent. In order to achieve this increase the War Production Board had to modify certain existing steel facilities and to bring other facilities into high quality steel production.

While the full ramifications of the new program were being worked out, there existed an urgent need for guns and ammunition in the field. Stocks of heavy weapons in this country were stripped and deliveries for training purposes were cut to a fraction of actual training needs. To accelerate ammunition deliveries, the Army Service Forces followed production step by step. For one type of ammunition, daily reports of shipments from shell producers were required by telephone. These shells were shipped by express to loading plants, with all cars traced through to destination. Loading in advance of shell testing was authorized in order to maintain continuous production on the loading lines. Express shipments were made directly from loading plants to the docks of ports of embarkation. Ammunition was also obtained from the Navy Department, and refuzed at an arsenal near the eastern seaboard. Twenty-four hours after the arrival of these shells from Navy arsenals, the ammunition was on its way to ports of embarkation.

Ammunition was withdrawn from troops in training. The needs of certain artillery battalions in France were met with an old-type shell without any modification. Zones of fire for the shell were established by tests, and large quantities shipped immediately to France. Meanwhile through the extraordinary efforts of expeditors, the planned production of the new-type shells during June was increased 30 per cent.

No feasible improvisation was overlooked in the effort to supply overseas needs in heavy ammunition.

OVERSEAS SUPPLY

Whatever credit accrues to the home front for its part in the war, it must always be remembered that it is a reflected credit -- reflected from the per-

formance of the troops in the theatres of operations. The Army Service Forces as well as civilian workers at home merely serve the needs of those who fight.

To show how these services are rendered, to demonstrate the close relationships between the home front and the fronts overseas, and to put production in proper focus, the following summarizes briefly, in terms of supply, what happened in the various theatres in the past fiscal year.

The ports of embarkation along the Atlantic, Gulf, and Pacific coasts are the key points in overseas supply. In July, 1943, some 160 fully loaded cargo ships had to be dispatched each month to provide the maintenance needs of the forces overseas. By June 1944, well over 300 fully loaded ships were needed to provide current supplies in all theaters. Since sea lanes were now secure from enemy interruption, overseas inventory levels were reduced both in January and in the summer of 1944. As a result, more shipping was available to move and support new forces overseas.

As military operations were stepped up and as more land came under our control, overseas supply needs increased. Wherever our forces went, there were facilities to install. In the Pacific, air fields, ports, storage depots, roads, hospitals, gasoline storage and distribution facilities, communication lines, and maintenance shops had to be built out of the jungle. In Italy and in France, systematic demolition by the enemy left such devastation that almost complete reconstruction was needed in order to provide the minimum essentials for American troop operations. These supply needs had to be estimated in advance by the Army Service Forces and the overseas theatres working together. The Army Service Forces then procured the right supplies and placed them in the theater when needed. For example, the Army Service Forces received a plan for the reconstruction of Cherbourg on 12 August 1943, nearly a year before that port fell to our invasion forces. Procurement directives were issued on 23 August 1943. The required supplies were in the United Kingdom before the invasion of France began. The rebuilding of Cherbourg port and other facilities began immediately after its capture on 26 June 1944.

European Theatre

The greatest single problem for the Army Service Forces during the fiscal year 1944, of course, was fulfilling the needs of the American forces, and in part those of the British troops, scheduled to invade France under General Eisenhower. In the summer of 1943 the Army Service Forces were given their objectives: to place a minimum of one and a half million men in England by D-day with all their necessary equipment; to provide the supplies necessary for their maintenance; to provide the equipment and materials needed to land supplies in France, except such as were a responsibility of the Navy; to keep supplies flowing to the troops once they had landed; and to provide adequate inventories of supplies in England upon which the invasion troops might draw their support. Those objectives were met.

However, there were two major obstacles confronting the Army Service Forces in performing their assignment. One was shipping capacity, and the other was the unloading capacity of British ports.

In order to move the required men and supplies to the United Kingdom, efficient use had to be made of all available ships not essential to the supply of other American forces. In the summer of 1943 it was apparent that the United States had more cargo carrying capacity than it had troop carrying capacity. While the imbalance could be redressed in time, the problem was immediate use of available cargo space. The answer was shipment of supplies to England considerably in advance of troops. But there were difficulties in this. Preshipment on a small scale to England in 1942 resulted in a bad scattering of supplies throughout the country. We could not afford this disorder again, particularly in any large scale operations. Therefore, service troops would have to be provided in advance of combat troops to handle the cargo shipped over; this meant stepping up training programs of service units. Also, it was necessary to forecast accurately the actual troops to be moved later, since the right equipment had to be on hand when they arrived. Finally, was equipment for pre-shipment to be taken from troops in training in this country?

Despite all the difficulties, the Army Service Forces determined to pre-ship supplies. Equipment was hauled directly from manufacturers to ports, while existing stocks were issued to troops in training. Service troops were sent to England to handle the unloading and storage. Supplies were carefully identified. The long daylight hours of summer and autumn 1943 permitted maximum use of British ports. Thus in the final months before D-day, it was possible to use shipping capacity to move the invasion troops and certain supplies needed after the invasion began. Neither would have reached England in the desired quantities except for the pre-shipment program.

Nevertheless, because of the limited capacity of British ports, a backlog of available cargo in the United States steadily developed after 1 January 1944. British ports at this time had to handle not only the in-flow of cargo but also the loading of troops and supplies for the movement to Normandy. By June nearly one million measurement tons (40 cubic feet per ton) of supplies, the equivalent of 100 shiploads, were ready at Eastern ports. Most of this was equipment and supplies needed after the invasion got underway.

Two steps were taken by the Army Service Forces in the United States to ease the pressure upon the ports of the United Kingdom. The number of scheduled sailings was reduced from 120 to about 100 ships per month, and the amount loaded on each ship was increased to the limit. Individual ships were loaded solidly with a single item, such as rations, clothing, lumber, or ammunition. These ships served as floating warehouses and were subject to discharge as circumstances permitted. As a second means of cutting down upon the number of ships to be handled in British ports the decks of tankers were fully loaded. They carried over on their decks each month supplies equivalent to the contents of twenty-five cargo vessels.

In May and June fifty-four ships were loaded with food, ammunition, and equipment specified by General Eisenhower's headquarters. These ships were never intended to be unloaded in England. They were dispatched overseas, held in British waters, and then moved directly to the Normandy beaches for discharge.

This saved four handlings in the United Kingdom, eased the pressure on ports, railroads, and depots, and provided immediate supplies for the invasion troops.

But no matter how careful the advance planning for military operations, there were always last minute supply needs which the Army Service Forces had to meet. This happened in a number of instances before the invasion of Europe. One example may be cited. On Sunday, 7 May 1944, Army Service Forces Headquarters was informed by supply officers in England that two American airborne divisions would have to be completely re-equipped for second employment sometime after their initial use on D-day. When paratroopers are withdrawn from the front line as other infantry units take over, much of the equipment used by the airborne divisions must be left behind. The equipment that has been damaged must also be replaced. A second employment of these divisions depended upon complete re-equipment. The theater did not have ample supplies of all items, and asked the Army Service Forces to make up the shortages.

When the list of shortage requirements was received three days later, it included sixty-six items of communications equipment, fifty-eight ordnance items, and forty-five engineer items -- altogether 214 items with a total quantity of 327,000 units. Supplies began to move that night all over the United States by rail, by express, by Army truck, by commercial and Army air transports. Every step in the movement was followed from point to point. No bottlenecks were permitted. As each shipment arrived near the port of New York, it was given an open switch and was escorted to the loading platforms of a fast-moving convoy scheduled to be in England by 1 June. Ninety-nine per cent of the equipment made that convoy. Only one shipment was lost enroute and it was replaced by another one flown to the port. Only a single item, helmet liners, was not delivered in time. Space for these liners was then reserved in one of the fast troop carriers traveling without convoy that arrived in England before 1 June. All supply items needed for re-equipping the airborne divisions were ready when the divisions returned from France.

North African Theatre

When the fiscal year began, the Allies in North Africa had just completed the campaign in Tunisia which eliminated the last Axis forces from that continent. On 1 July 1943, there were trains and trucks rumbling along 1,000 miles of supply lines from Casablanca to Bizerte, and in the east 1,300 miles from Alexandria and Cairo across Egypt and Libya. Supplies were hauled these full distances because the Mediterranean ports were jammed with preparations for the coming assaults against Europe.

During the period of this report the North African Theatre launched three major amphibious assaults against the enemy -- first on Sicily on 10 June 1943, then at Salerno on 9 September, and at Anzio on 22 January 1944. At the end of the year plans were completed for the fourth such major operation, the landings in southern France on 15 August.

Amphibious operations are costly in equipment. Landing troops with their weapons and supplies over beaches meant tractors, trucks, and all kinds of landing craft large and small. Losses could not be avoided. Constant use under adverse conditions resulted in rapid deterioration. Until the reconstruction of Naples, most supplies had to be transported from various North African ports, each of which needed adequate inventories.

In order to reduce the use of ships in moving supplies between bases in North Africa, the capacity of the French railway system there was increased by the manufacture in this country of rail equipment of French design, and by the management and operation of these lines by American personnel.

Supplies to support one million men were being dispatched to the Mediterranean by the end of the fiscal year. The cargoes hauled in this one year to that theatre exceeded those shipped from the United States to France from May 1917 to April 1919, during World War I, by $5\frac{1}{2}$ million tons.

Southwest Pacific

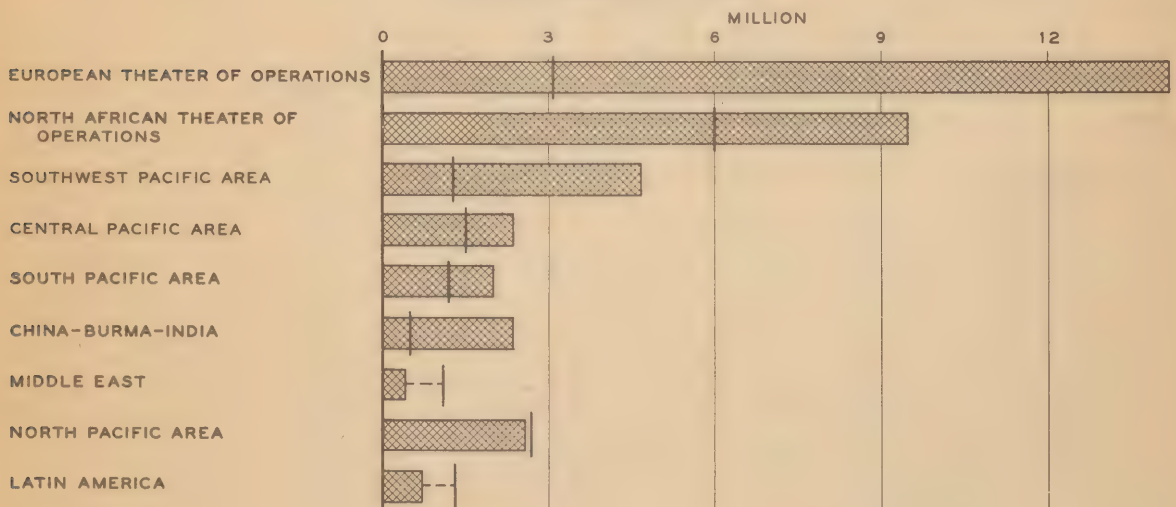
While one Axis partner capitulated and the Germans were driven back in Europe, the Army Service Forces were equally concerned with the war against the

SUPPLY OF THEATERS OF OPERATIONS

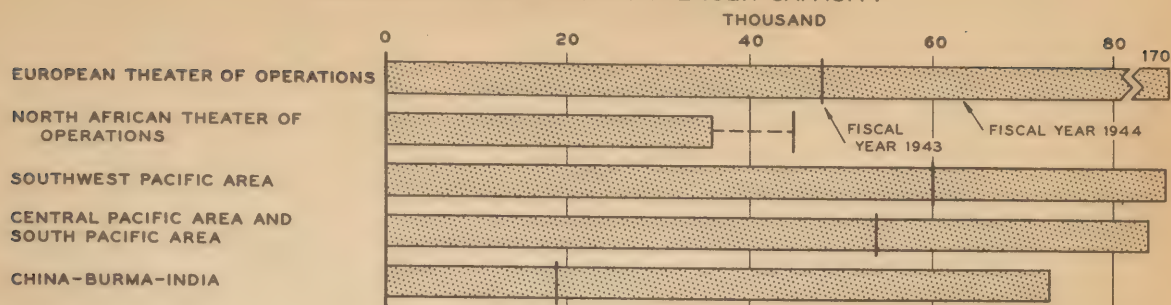
FISCAL YEARS 1943 AND 1944



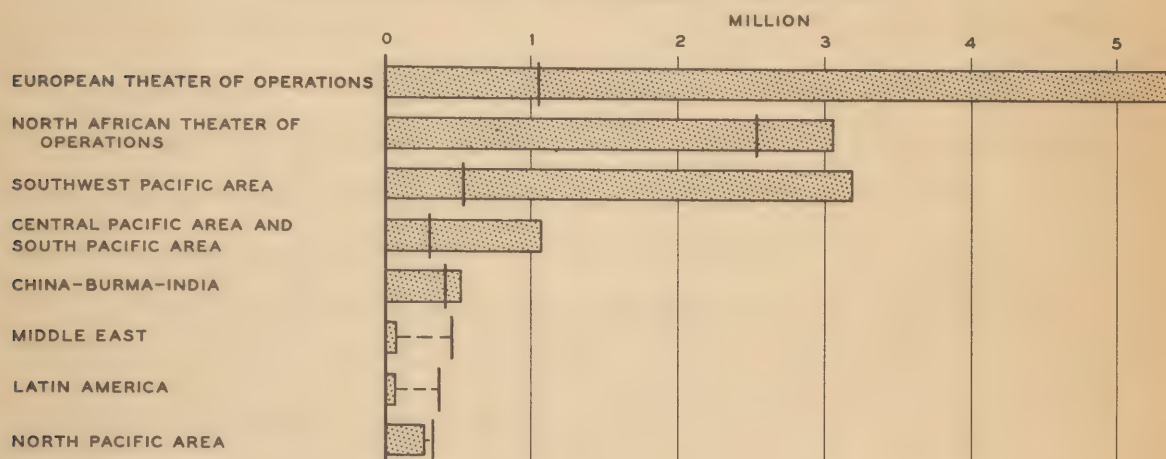
CARGO SHIPPED FROM UNITED STATES BY MEASUREMENT TONS



TOTAL VESSELS IN ARMY SERVICE **PASSENGER VESSELS BY PASSENGER CAPACITY**



CARGO VESSELS BY MEASUREMENT TON CAPACITY



Japanese. In terms of vessels assigned, the Southwest Pacific Theatre under General MacArthur's command led the North African Theatre and was second only to the European Theatre. Australia and New Guinea were the scene of these operations.

By the start of the year covered by this report, the strategic situation in the Southwest Pacific had altered. General MacArthur had accomplished the initial mission assigned him -- to turn back the Japanese advance from the north toward Australia. He was ready to take the offensive up the coast of New Guinea toward the Philippines.

The experience of the Buna campaign indicated, however, that the type of warfare originally projected against the Japanese was inadequate for the task and unsuited to American methods and temperament. Like the enemy, our forces had been equipped with light, mobile equipment. Such troops could move through the jungle, infiltrating behind opposing lines to operate against individual parties of the enemy. But an assault upon intrenched positions was costly in lives, and decisive defeat of the enemy would require an inordinately long time. Accordingly, new tactics based on our superiority in materiel were adopted by the theatre. These tactics called for overwhelming weight in the air, in machines and firepower, with a campaign designed to obtain major operating bases on the road to the Philippines which would secure our own advance but leave the enemy isolated in the jungle. It has been truly said that whereas the Japanese adapted their tactics to the jungle, we remade the jungle to fit our tactics.

This decision made obsolete some of the equipment already furnished and projected for the Southwest Pacific. The use of heavier equipment meant changes in the procurement program and greater tonnages to be transported.

It involved more facilities in the theatre for handling supply, more amphibious equipment, and more spare parts and other maintenance supplies. In short, operations in the Southwest Pacific became a problem of heavy supply for the Army Service Forces.

As the campaign progressed, new bases were built along the New Guinea Coast. By 30 June 1944 the success of tactics based upon overwhelming supply had been amply demonstrated.

Distances and the complete reliance upon water transportation was, of course, the single greatest obstacle to supply of the Southwest Pacific. From Brisbane, the major base in Australia, to Port Moresby in New Guinea, our first forward supply point, was as far as from Miami, Florida to Quebec. The demands for ships and other transportation equipment were insatiable.

Tugs, lighters, barges, cranes, and tankers were produced and dispatched at once to the theatre. Motors for small boats of 70 and 80 tons were made and shipped for vessels constructed in Australia. As more shipping became available, freighters were assigned in larger numbers to local supply operations, so that smaller craft might be used exclusively in assaults upon new points.

When base facilities became available in New Guinea, the Army Service Forces loaded vessels out of the United States directly to points along the coast to lessen the transshipment burden. Docks for Liberty Ships were built at Milne Bay, Finschafen, and Hollandia. From time to time, General MacArthur sent representatives to the San Francisco Port of Embarkation to advise on the loading of ships to proceed straight to New Guinea. For example, ships with supplies for construction of necessary facilities at Hollandia cleared San Francisco directly for Hollandia even before General MacArthur's troops had actually landed.

South Pacific

At the beginning of the fiscal year, a separate command directed the campaign to push back the Japanese from the Solomon Islands, New Georgia, and New Britain. Active combat operations in the South Pacific Theatre came to an end with the occupation of Green Island in the Solomons on 14 February 1944. The major effort of the year was the assault upon Bougainville on 1 November 1943, which followed the landings on New Georgia on 30 June. Airfields, roads, and storage facilities were constructed on Bougainville, which enabled the American

forces to neutralize all Japanese operations on the island as well as at Rabaul by periodic attack from the air.

The cessation of assault efforts did not end the supply problem of the Army Service Forces for this theatre. From 52,000 measurement tons of cargo shipped to the area in July 1943, the total expanded to a peak of 311,000 tons in May 1944. These large shipments were required to re-equip the forces in the theatre for service with General MacArthur, and for supplying forces withdrawn from combat in the Central Pacific area.

Central Pacific

Joint Army-Navy supply planning for the westward advance from Honolulu toward the Philippines began in July 1943. It was agreed that the Army would provide all food needs for shore-based personnel of both services, the necessary hospital facilities, the communications system, water supply installations, all covered storage space, and a large part of the supplies for ports, airfields, roads, and fortifications. Since these attacks were to proceed concurrently with amphibious assaults elsewhere in the Pacific, it was necessary to plan shipments of necessary supplies with great care.

In October 1943, supplies dispatched to the Central Pacific were four times greater than the previous average monthly shipment. Successful landings were made on Tarawa, Makin, and Agamama in late November. Cargo shipments reached a new high in January 1944 -- the assault upon Kwajalein and Eniwetok in the Marshall Islands occurred in February.

In May 1944 the Army Service Forces shipped 312,000 tons of supplies to the Central Pacific -- the record high of the year and 25 per cent more than in October 1943. The conquest of Saipan began on 15 June. This time the Army was allotted an even larger share of projected airfield and dock construction. Indeed, before the attack began, plans for bombing facilities were tripled. The necessary construction machinery was drawn from all over the United States, including current construction projects, and sent to the Central Pacific.

Throughout these campaigns the Army Service Forces were hard pushed to meet

operational needs. At no time, however, were attacks delayed for lack of supplies, and construction activities subsequent to each conquest proceeded rapidly.

China-Burma-India

No theatre where American troops were stationed presented more complicated supply problems than China-Burma-India. The obstacles included not only long distances, inadequate transportation facilities, and almost insurmountable conditions of climate and terrain, but also complex psychological and political patterns among the Indian and Chinese people. Nonetheless, supply to this distant area substantially improved during the year.

Decisions made at Quebec in 1943 to increase the supply capacity by air and land into China more than doubled the requirements for service troops, equipment, and materials in the theatre. Additional pipelines were needed, for example, since the first projected lines would now only be sufficient to supply the larger number of cargo trucks planned for use on the Ledo Road from Northeast Assam to a junction with the old Burma Road east of Paoshan.

During the first few months of the fiscal year, it proved impossible to increase the carrying capacity of the Bengal-Assam railway system hauling supplies to the Ledo Road. This system consisted of a standard gauge road, a meter gauge line, and a ferry across the Brahmaputra River. Railway troops provided by the Army Service Forces took over full operation of the meter gauge part of the line on 1 March 1944. By the end of the year the system was handling all tonnage offered, with a 10 per cent excess capacity.

The Air Transport Command in June 1944 flew nearly 16,000 tons of supplies into China, about five times more than in the previous July--and further increases were in sight. By the end of the year surfacing on the Ledo Road had made substantial progress. Eventually, the road must extend a total of 500 miles over virgin jungle, paddy fields, and torrential streams to reach the China border.

Of all supplies shipped by the Army Service Forces to the China-Burma-India theatre, 58 per cent have been Army Service Forces procured items for the

construction of the new routes into China and for the support of American Army troops.

Iran

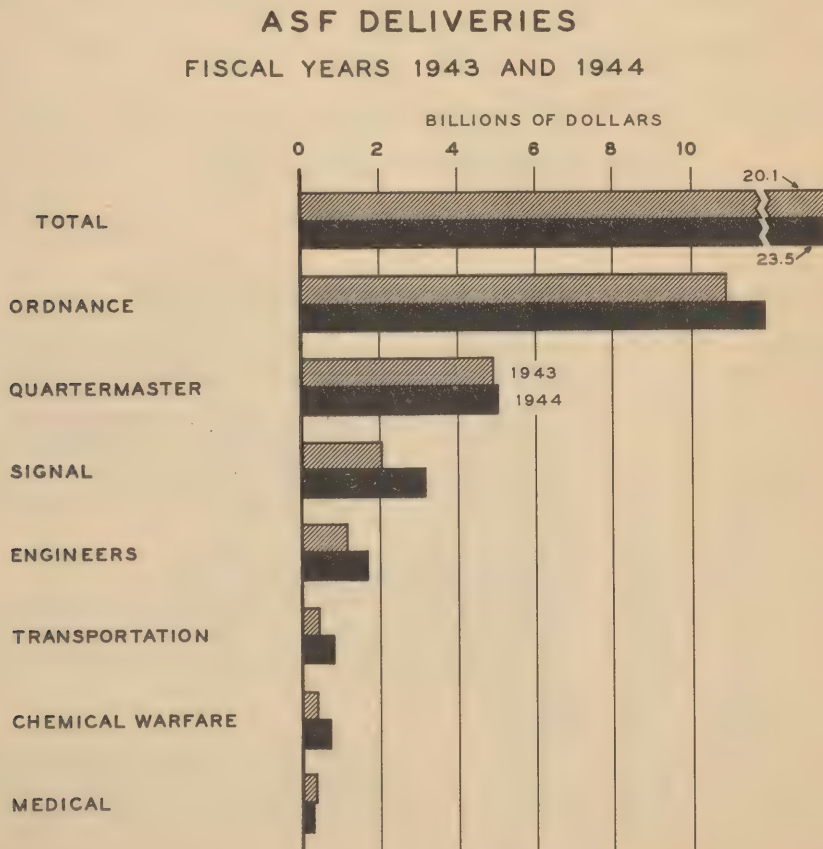
The Persian Gulf Service Command was maintained by the Army for the movement of lend-lease supplies through the Persian corridor to Russia. Supplies were unloaded at ports along the Persian Gulf and shipped north 700 miles to Teheran, where they were turned over to the Russians for movement to their ultimate destination. The facilities operated and maintained included four ports, three truck assembly plants, one aircraft assembly plant, the railway line from the Gulf to Teheran, a truck route, motor repair shops, and storage depots. The 29,000 troops under the command were entirely service troops. About 58,000 native employees were also hired.

At the beginning of the year the Persian Gulf Service Command was handling 142,000 tons of cargo a month. In December 1943 the traffic had mounted to 221,000 tons. During March, April, and May shipping by the Army Service Forces dropped because of the cargo needs of the European Theatre of Operations just before the invasion of Normandy, but by June the tonnage landed in the Persian Gulf was up to the high point of 255,000 tons. At that time about 55 per cent of the supplies landed were moved to Teheran by rail, and the remainder mostly by truck.

PROCUREMENT

Deliveries from American industry to the Army Service Forces in 1944 amounted to 23.5 billion dollars, as compared with 20 billion dollars in the preceding fiscal year. The figure for 1943 has been adjusted to conform to the price index in 1944. Of special significance in procurement was the fact that only 2 per cent of all supplies scheduled for delivery in the calendar year 1944 were needed to complete the initial equipment of American forces. About 25 per cent of all procurement went to replace items already issued; 36 per cent was for consumable supplies, such as food, ammunition and petroleum; 17 per cent went for lend-lease aid to our Allies; 14 per cent went to the Army Air Forces; 3 per cent to the Navy; and 3 per cent was retained as a reserve.

While production demands increased for heavy trucks, construction equipment, communications equipment, heavy artillery, and heavy ammunition, the requirements for small arms, small arms ammunition, and tanks were curtailed during the year. Anti-aircraft artillery requirements were reduced because



of the growing air superiority of the United Nations. In the overall picture of changing requirements, it was evident on 30 June 1944 that the procurement program for the calendar year 1945 would be about the same as that for the calendar year 1944, if a two-front war should continue.

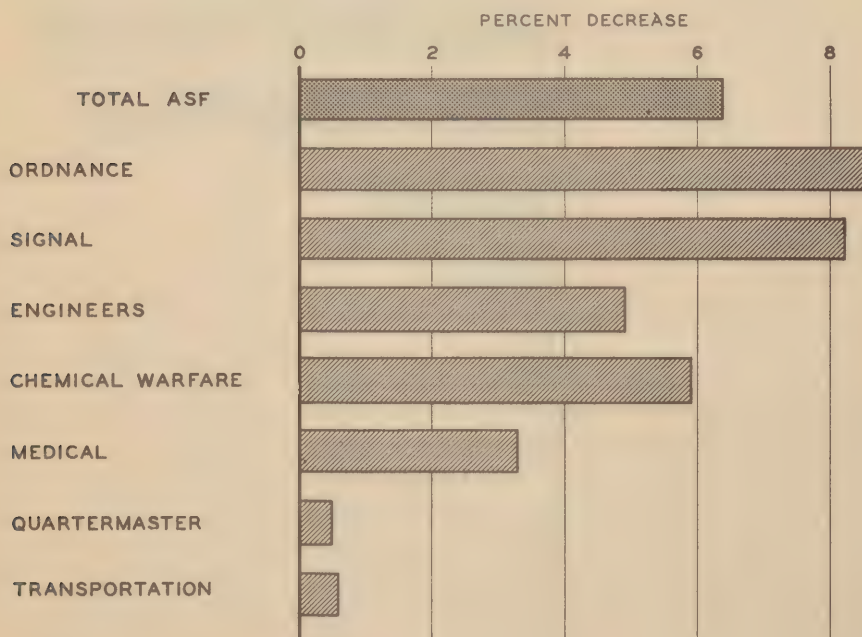
Cost Reduction

The pricing policy of the War Department was an inseparable part of the actual production of needed supplies. Experience showed that a price based upon too liberal cost estimates resulted in increased production expenditures. A price based upon closely calculated cost estimates usually resulted in lower production cost, because it forced the contractor to use ingenuity in keeping his expenditures to a minimum. To a substantial extent, therefore, prices determined whether a contractor was economical in his utilization of the true resources of the nation -- raw materials, labor, and machinery.

The fiscal year 1944 saw the War Department put into complete effect its policy of buying war supplies at close prices. This policy was designed to make prices contribute to the greatest possible output of goods, to minimize the monetary cost of the war, and to help check inflationary tendencies.

DECREASE IN CONTRACT PRICE CHANGE INDEXES

FROM 30 JUNE 1943 TO 30 JUNE 1944



American industry cooperated with the War Department in reducing the prices of supplies. Personnel from contracting offices reviewed the cost and pricing practices of large contractors on all their War Department business. As a result of this company pricing program, one large contractor holding over one billion dollars of war contracts reduced his contract prices by 15 per cent. The price for all procurement by the Army Service Forces declined 6.4 per cent during the year, to a level 16 per cent below that prevailing at the beginning of the war.

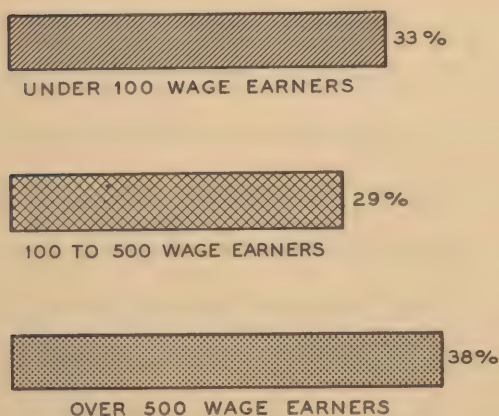
The renegotiation of contracts gained momentum during 1944. By 30 June, direct refunds to the government by supply and service contractors aggregated 1.6 billion dollars for the Army Service Forces. These figures do not include price reductions in existing contracts which exceeded actual cash recoveries, nor do they take into account the lower prices on future contracts that will undoubtedly result.

Small Business

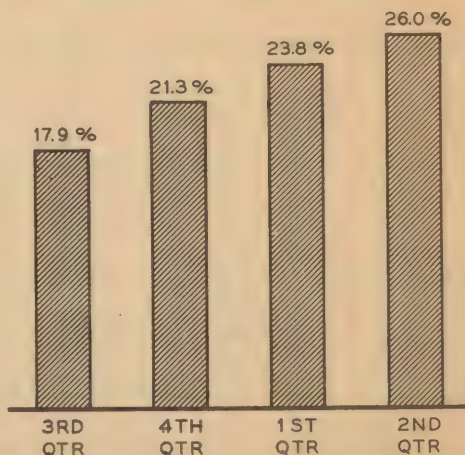
Increased effort was given to awarding more contracts to small businesses during 1944. A new procedure for reviewing contract awards was developed with the Smaller War Plants Corporation of WPB. In the first quarter of the fiscal

ASF PRIME CONTRACTS AWARDED TO SMALL MANUFACTURERS 1 JULY 1943 - 1 JULY 1944

DISTRIBUTION OF
CONTRACTS AWARDED
BY SIZE OF MANUFACTURER



PERCENT OF CONTRACT VALUE
AWARDED TO MANUFACTURERS EMPLOYING
500 WAGE EARNERS OR LESS



year 1944, 17.9 per cent of the contract value of all purchases was awarded to manufacturers employing under 500 workers. In the last quarter of the fiscal year 1944 this proportion had risen to 26 per cent. There were certain types of procurement, however, such as tanks, locomotives, tractors, and heavy weapons which could not be provided by small plants.

Petroleum

About half of all cargo shipped overseas during 1944 was gasoline and other petroleum products. Aviation gasoline, purchased by the Army Air Forces, was hauled by the Army Service Forces. In addition, the Quartermaster General purchased over a billion dollars worth of gasoline for the overseas use of ground vehicles. His office also bought 50 million gallons of engine oil, 3 million gallons of gear lubricants, and 45 million pounds of greases. Virtually all gasoline needed overseas was stored by the petroleum industry and delivered directly to tankers or in drums for overseas shipment.

Three leading commercial petroleum inspection agencies contracted with the War Department to inspect the quality and packaging of all petroleum products purchased for overseas use. Sample inspections were made of products locally purchased by Army posts in the United States.

A petroleum products laboratory was set up during the year for the central testing of lubricants needed for the various types of equipment of the Army Service Forces. This helped to insure proper specifications for each specific use.

The Quartermaster General also purchased collapsible gasoline containers during 1944 which could be used overseas for both storage and transport. Gasoline dispensing machinery was also procured and shipped to theatres of operations. The rapid handling of gasoline overseas was further solved by the use of gasoline pipelines from beaches and ports to troops at the front line. Portable pumping units for the booster stations along the way were developed by the Corps of Engineers. An aluminum storage tank was also designed, and the problem of water suspended in gasoline was solved by a new gasoline-water separator which delivered gasoline containing less than .02 per cent water.

The major petroleum development of the year, however, was the standardization and production of an all-purpose, all-weather gasoline which could be used in all ground vehicles from jeeps to tanks. This ended the problem of overseas handling and distribution of various grades of gasoline. Overseas stocks became dangerously low during the change-over in refineries, but new production of gasoline soon reached such volume that no lapse in supply occurred.

Research and Development

By the end of the fiscal year 1944 the American Army overseas was using scarcely a single weapon that was the same as those provided when the United States was attacked on 7 December 1941. The infantryman, for example, had a new uniform, warmer and yet lighter than the old uniform, and based on the principle of "layering," or adding extra pieces, which made it an all-purpose, all-climate uniform. His rifle was the semi-automatic M-1, now in its third model, instead of the old Springfield with which virtually all troops were equipped in 1941.

His bayonet was shorter and more deadly than the old 16-inch model. Infantry units were equipped with a totally new, all-metal .45-caliber submachine gun, with three times the firepower of the old Thompson gun. Officers, paratroopers and service troops carried .30-caliber carbines instead of .45 revolvers. The soldier's combat boot was more comfortable and buckled high up, removing the necessity for leggings. Not a single piece of antiaircraft artillery went back to prewar days, nor a single piece of heavy artillery from the 155mm. up. Such items as the M-4 tank, in its fourth model, the 76mm. anti-tank gun mounted on a high-speed tank chassis, the bazooka and the phenomenal amphibious 2½-ton truck, were all developed after the United States entered the war and were standard equipment at the end of the fiscal year.

The research and development program of the Army Service Forces -- utilizing all of the inventive genius and research facilities of industry, government, and educational institutions -- maintained a continuing search for new weapons, commodities, and manufacturing processes. This program showed outstanding results during the fiscal year. The Army was especially grateful

for the aid and, in some cases, the leadership of the Office of Scientific Research and Development in developing many items.

Among the most important developments in weapons were the eighteen different rocket items standardized for procurement during the year. Several new artillery pieces were developed, including the successful installation of 75mm. cannons in airplanes. A new 20mm. gun for aircraft armament was developed with a cyclic rate of fire equal to that of the .50 caliber machine gun. Forty-five new tank and motor transport items went into production, including a new tank-destroyer weapon. Reports from overseas indicated that all ordnance weapons performed exceptionally well under severe conditions.

Perhaps no field more clearly demonstrated the scientific precision of modern warfare than radar. Keeping ahead of the Germans in this field was no simple task. German electronic developments were very rapid, and our own innovations were quickly put to use against us.

In the Pacific, high humidity, high temperatures, and considerable rainfall caused many communications sets to deteriorate rapidly. Radio equipment became inoperative because of dampness and fungus growth. A new liquid coating was developed during the year which greatly increased the operating life of all radio and telephone equipment in the Pacific area.

A special noise limiter was also developed which not only abated communications interference intentionally caused by German equipment, but eliminated many other noises picked up by aircraft radio sets. The same principle used in airborne sets also served to eliminate static in walkie-talkie sets used by ground troops.

Steel treadway bridges were redesigned in 1944, increasing their capacity to 40 tons to accommodate heavy tanks and artillery pieces. New designs were also prepared for bridge spans to replace those destroyed by a retreating enemy. New mine locating and clearing devices were produced, including a detector for non-metallic mines. A bulldozer blade was mounted on a tank so that it might serve as an assault weapon while clearing tank obstacles.

In the field of clothing, mosquito proof tropical garments were developed, as well as a suit for protection against body lice in typhus-infected areas. A number of improvements were also made to provide better water-proof protection for the soldier and his equipment. Field refrigerators were procured to make possible the use of frozen food overseas. Two new types of solid fuel were developed, as well as a fuel tablet, enabling the soldier to heat his rations under combat conditions. New devices were found for purification of water, and a highly efficient portable distillation unit for transforming sea water into drinking water was developed and placed in use.

Physiological studies developed the fact that high altitude flyers did their work more efficiently if provided with high carbohydrate diets. Rations developed for this purpose had to be packed so that they could be opened by fliers wearing heavy gloves and oxygen masks in extreme cold. All rations for overseas use were improved and given greater variety. An all-purpose soap was provided soldiers which could be used for shaving, washing and laundering, and which would function in all temperatures of hard, soft, or salt water. Water resistant matches were provided which would light under humid conditions.

Chemical warfare research was carried on intensively. Gas continued to be available in case the enemy should decide to employ this weapon against our forces or those of our Allies. Our armies were prepared for gas warfare under any climatic conditions. Other chemical agents that went into production during 1944 included new types of incendiary and oil bombs for aerial attack. In response to the Eighth Air Force's requirements for a large oil bomb to penetrate the roofs of industrial targets in Germany, the Chemical Warfare Service designed and standardized the 500-pound oil bomb, and developed two new incendiary mixtures for it. Previously the largest incendiary had been the 100-pound bomb. New flamethrowers were developed and water-proofed for use in tropical regions. The increased use of smoke for concealment of operations demanded new smoke generating equipment. The soldier's gas mask was made 43 per cent lighter in 1944. These were only some of the technical developments of the year.

The Combat Boot

The development of the combat boot, standardized in the fiscal year 1944, is typical of the process which leads to the adoption of new military equipment and weapons. In the summer and autumn of 1942 the Desert Warfare Board of the Army Ground Forces and the Quartermaster General of the Army Service Forces were concerned about proper footwear for desert conditions. Numerous experiments were made with troops in the California-Arizona Maneuver Area. The regular Army shoe had several defects, including rapid wear of the sole, and abrasion from sand action. The characteristics of a desired shoe emerged from these tests. The shoe should be high enough to keep out sand and to permit snug tucking in of the coveralls, but not so high as to bind the calf muscles or heat the legs unnecessarily. The sole should be of heavy leather, the toe should be capped for extra protection, and the top should preferably be of stout canvas, with a simple short lacing and a broad adjustable strap.

Work on a design for such a boot continued until November, 1942, when Headquarters, Army Ground Forces, decided that further efforts were unnecessary. In February, 1943, the Chief of Staff returned from an inspection trip to the Tunisian front. He reported that the present issue shoe was not adequate for field use. The various samples of experimental desert boots were then submitted to him. Additional ideas were received about the same time from the Desert Warfare Board.

Consultants and technicians of the Quartermaster Corps promptly designed a new field shoe and a new field combat boot. Since the new field shoe could be made more readily, it went into immediate quantity production to replace the existing issue shoe for theatres of operations. Some 100,000 pairs of the combat boot were purchased for testing as possible replacement for the shoe in all desert and temperate climate operations.

The shoe and the boot were similar, being made of heavy leather with the flesh side turned out, thus affording a smooth and comfortable inner surface to the foot. The rough outer surface was more flexible and had better waterproof

qualities than the traditional shoe design with the smooth side of the leather on the outside. The shoe and the boot both had full rubber soles and heels. The difference was that the boot was 10 inches high, while the shoe was 6 inches. The boot laced to shoe height while the top fastened with a double buckle. The use of the boot eliminated the need for the canvas leggings which had been unpopular in the desert and overseas.

The bulk of the boots originally purchased were sent overseas. Commanders were uniformly enthusiastic about their use. Accordingly, the combat boot was standardized for Army procurement and issue in November, 1943, and large-scale production began immediately. The available supply during the rest of the fiscal year was sent overseas for use by the fighting forces.

Conservation

The War Department in October, 1943, at the suggestion of the Army Service Forces, directed the establishment of the Army Conservation Program. This program aimed at impressing upon the individual soldier the military necessity of taking proper care of his clothing and equipment and of avoiding waste of supplies and utilities. Posters, tags, broadcasts, overseas magazine editions and other media warned the soldier that failure to keep his weapons and equipment in fighting condition was not only dangerous to himself but of direct assistance to the enemy. Results have shown that Army personnel at home and abroad have become more conscious of conservation than ever before.

In order to reduce food purchases, the Army Service Forces established a Food Service Program in July, 1943. As a result the average daily waste in food per man in the Army was cut from 2.2 ounces per man to 1.1 ounces per man between October, 1943 and June, 1944. In addition, the regular daily butter allowance for soldiers was reduced from 2 ounces to 1.12 ounces per man per day. This was the only curtailment in food supplies for soldiers necessitated by the food situation in the United States.

Changing Problems

The chief procurement problem of the calendar year 1944 was labor shortages. This was the third phase in the development of procurement activities.

Previously facility shortages and raw material shortages had limited war output. Today these first two shortages have receded into the background.

On 1 July 1940 the United States did not have a munitions industry. The annual average expenditure for new equipment in the preceding seven years had been 91 million dollars. In the seven years from 1927 to 1933 the annual average had been about 26 million dollars. The United States had to begin its defense program with the acquisition of necessary production facilities for the output of military supplies. By the time of Pearl Harbor we had gone a long way in acquiring the necessary productive capacity.

After the declaration of war against the United States by the Axis powers, overwhelming productive resources were thrown into the battle of supply. Capacity began to run ahead of available raw materials. Throughout the latter half of 1942 and most of 1943 raw material limitations compelled adjustments in procurement programs. By the end of the calendar year 1943 our raw material supplies were sufficient to meet the military program and still provide goods for the maintenance of our civilian economy.

The mobilization of our manpower brought with it in 1944, however, difficulties in directing available labor supply into the most essential productive effort. It is questionable whether there has been an overall labor shortage in the United States. There have been many shortages in individual communities and in individual industries.

After reaching a peak in November, 1943 deliveries to the Army Service Forces declined steadily to June, 1944. In considerable part this drop was caused by labor shortages in critical phases of the procurement program.

Many different devices were attempted to provide the necessary labor supply. Intensive recruiting campaigns were launched in a number of cities. The Army cooperated with the manpower priorities committees and the production urgency committees established in some eighty communities. Rent control was recommended by the Army Service Forces in certain areas and strong support was also given to the provision of adequate housing, schools, child care centers,

transportation, shopping, and other facilities. In all cases the War Department stressed the importance of community organization in developing necessary community adjustments. Local leaders were asked to accept responsibility for the solution of manpower problems. Changes in shopping hours and in the use of recreational facilities, as well as manpower controls, helped meet labor shortages in many areas. At the end of the fiscal year the final outcome of these and other measures was uncertain.

TRANSPORTATION

The continuing concern of the Army Service Forces in moving supplies and men overseas has been available shipping. The growth of our merchant marine and the elimination of losses from enemy action have been paralleled by larger cargoes and more troops despatched from the United States. The Army Service Forces shipped a grand total of 40 million tons of cargo overseas in 1944, compared with 19 million tons in 1943. A total of 2,600,000 passengers were embarked, including troop units, replacements, and other personnel, compared with 1,200,000 in 1943.

Ours is a two-front war. In no sense has the Pacific effort been a minor one, as the figures prove. About 60 per cent of all army cargo in the fiscal year 1944 went across the Atlantic, 40 per cent across the Pacific. About 70 per cent of all soldiers were carried to Atlantic theatres, and 30 per cent to Pacific theatres.

For shipments to Atlantic bases the Army Service Forces were able to send troops with practically no equipment on fast transports. Guns, trucks, and other equipment went in slow cargo convoys. There were two advantages to this system. Fast transports could use their speed to avoid submarines. Troops were loaded and unloaded rapidly when only their personal equipment accompanied them, and a frequent cycle of troop sailings could be scheduled. Secondly, the loading of equipment on slow cargo vessels meant economic use of holds and deck space. The supplies selected for any one ship's cargo were

chosen with concern for filling the cubic content of the ship and utilizing all available deck space. For instance, during the year special decks were installed on some 500 tankers for the transport of planes. This permitted the Army Service Forces to haul in assembled condition some 12,000 of a total of 19,000 planes moved by ships.

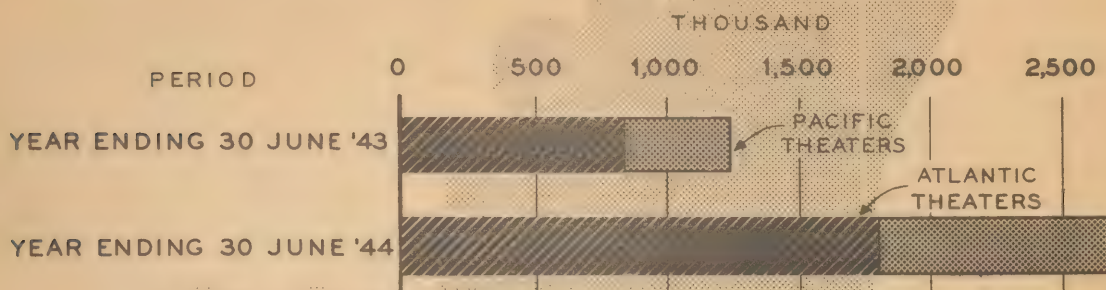
In the Pacific, the problem of moving troops and equipment was met in a somewhat different way. Oftentimes when troop units moved from Hawaii to a forward base just before going into action, their new equipment and supplies were sent directly from the United States. The troops then were transported with only their individual items. The failure in 1943 of the Army Service Forces to match troops and equipment shipped across the Pacific was eliminated in 1944.

Total cargo and troop ships in Army service increased from 719 on 30 June 1943 to 1,500 on 30 June 1944. Cargo-carrying capacity increased 122 per cent, while troop-carrying capacity increased 139 per cent. Of the 1,500 vessels in Army service, more than 1,200 were allocated to the Army Service Forces by the War Shipping Administration. The remainder were owned or chartered by the Army, or loaned by the British Government and the Navy Department.

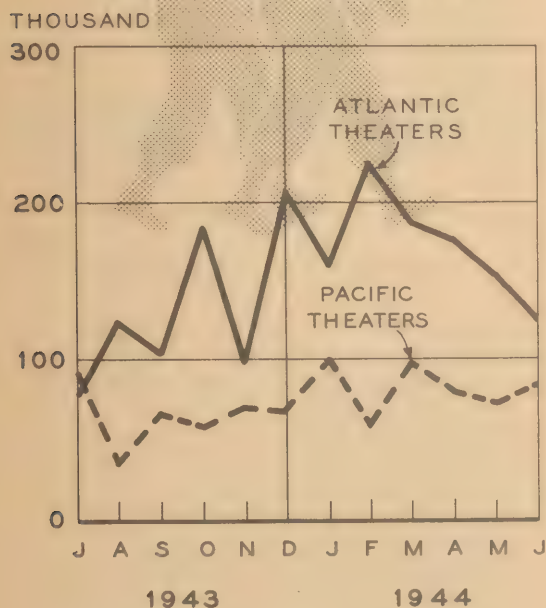
The growth of industrial production and the constant increase in the number of ships available to move supplies overseas created real danger of clogged ports -- a danger that was successfully avoided. Ports of embarkation and cargo ports on the Atlantic Ocean and the Gulf of Mexico handled approximately three-fourths of all overseas shipments. The remaining quarter moved through ports on the Pacific Coast. Careful control was continued over the movement of cargo into ports. During June, 1944, a total of 153,216 carloads of export freight were loaded at United States ports. compared with 119,435 carloads in June, 1943. Despite this great increase, there were only 21,000 cars at ports awaiting shiploading on 30 June 1944 compared with 24,000 on 30 June 1943. The New York Port of Embarkation had a smaller average number of cars on hand waiting to load during June of 1944 than during any other month since the autumn of 1941. At the end of the year the backlog of railway cars on hand at

ARMY TRANSPORTATION TO OVERSEAS THEATERS

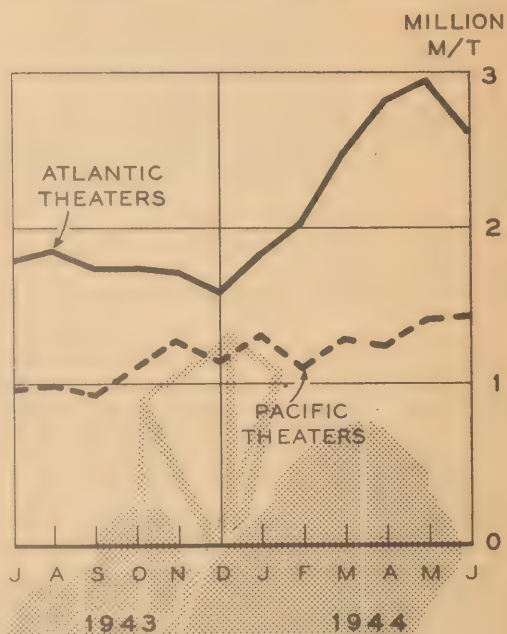
TROOPS AND OTHER PASSENGERS EMBARKED YEARLY



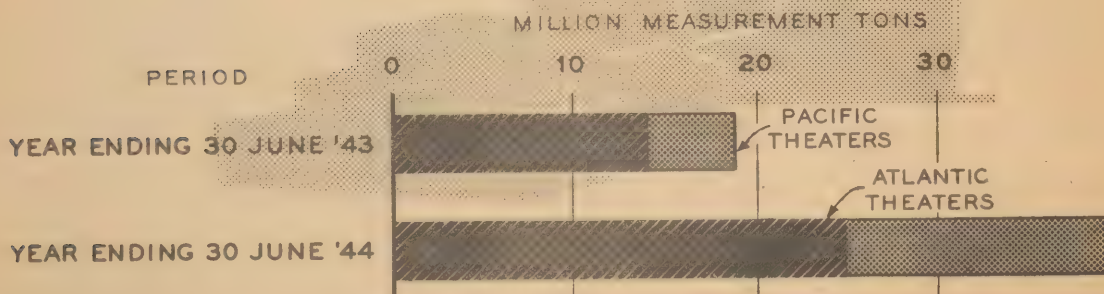
TROOPS AND OTHER PASSENGERS EMBARKED MONTHLY



CARGO SHIPPED MONTHLY



CARGO SHIPPED YEARLY



ports of embarkation was the equivalent of only four and one-half days' loading. At 22 ports there were only 36 cars which had been on hand for more than 30 days. The year before the number had been 514.

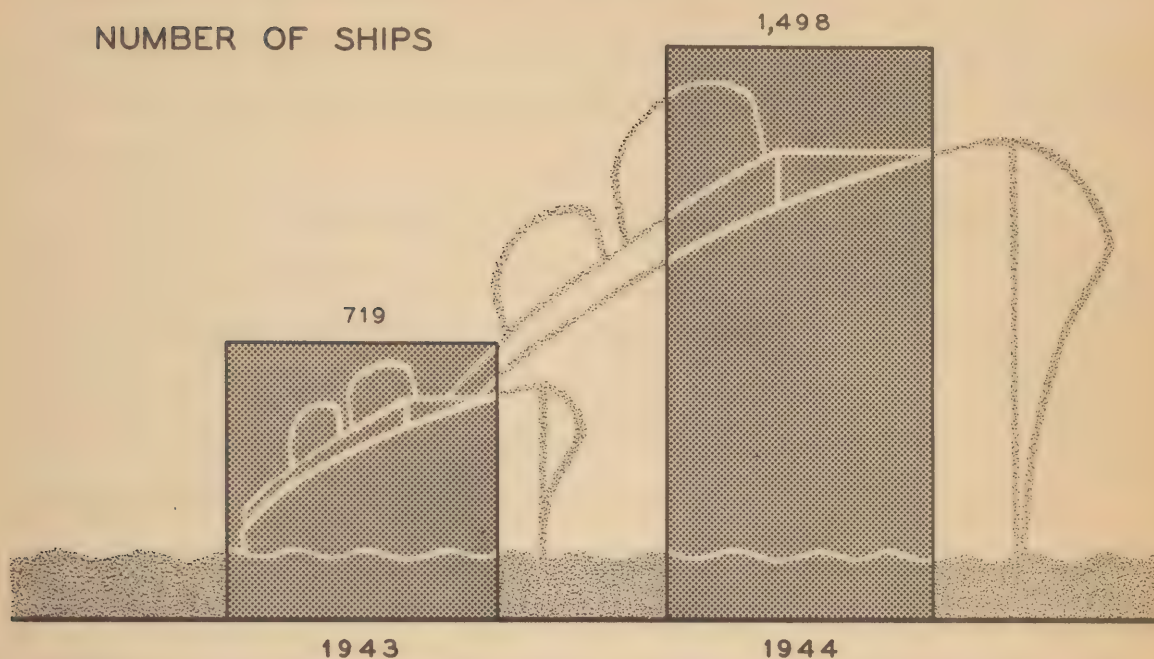
Because of concern by the authorities in various American ports, special precautions were taken in the loading of explosives. Ammunition piers were constructed at isolated places in port areas where an explosion would do the least possible damage. The number of ammunition cars that might be brought to piers and their supporting railway yards was carefully limited. Shipments were dispersed among many different ports in order to limit the danger from explosion at any one place. Thanks to good fortune and careful handling, at the end of the year there had not been an explosion of ammunition at any Army pier.

Within the United States, commercial carriers hauled over 95 million tons of Army traffic during the fiscal year ending 30 June 1944. This was an increase of 26 per cent over War Department traffic during the preceding year. Over 90 per cent was moved by rail. A new system was arranged during the year whereby the Army Service Forces fixed the actual time for troop movements, within a range of several days determined by the Ground Forces and the Air Forces. In this way advance preparations could be made for the most efficient utilization of railway equipment. In one case as many as seven divisions were moved all over the country within a month by one set of railway equipment, thus saving thousands of freight cars. In a single month as much as a million dollars in transportation costs were saved by moving Ground Forces troops without trucks and other general purpose vehicles. The necessary vehicles were then provided the troops at their new stations.

From 27 December 1943 to 18 January 1944, the Army Service Forces at the direction of the Secretary of War took over actual operation of the nation's railroads. Continued operation by the owners was threatened by strikes scheduled to begin on 30 December. Consultants to the Army Service Forces and some

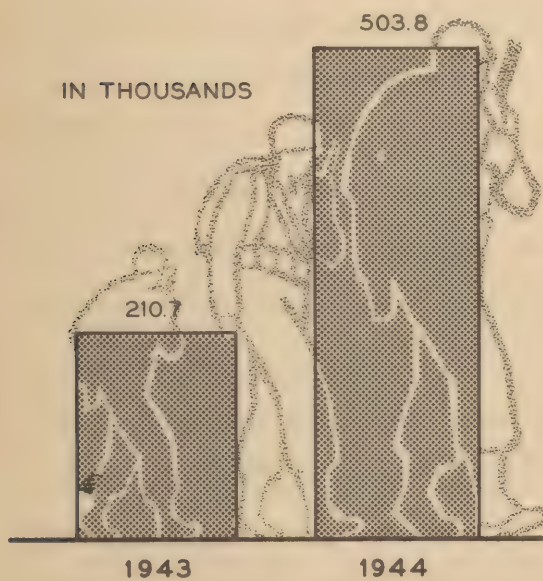
VESSELS IN ARMY SERVICE

NUMBER OF SHIPS



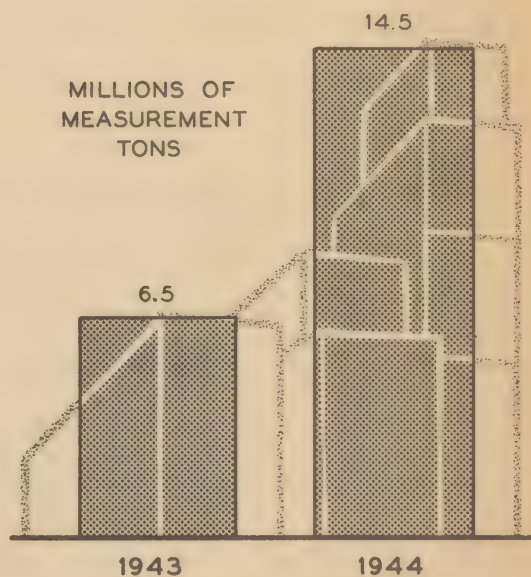
TROOP CAPACITY

IN THOUSANDS



CARGO CAPACITY

MILLIONS OF MEASUREMENT TONS



operators were drawn from the fields of railway management and railway labor. Approximately 600 commissioned officers were assigned to work with individual carriers. When the underlying disputes between management and labor were settled, the railway systems were turned back to their managements as promptly and as smoothly as they had been taken over. Releases were obtained from the 800 carriers which ruled out any cost to the government for its period of operation.

The Army Service Forces were able to obtain the cooperation of both management and labor during the period of control, so that the lines were operating even more efficiently at the termination of War Department responsibility than at its beginning.

AID TO ALLIES

Cutting across Procurement, Supply and Transportation is the substantial proportion of American munitions production which goes to our Allies under lend-lease. During the fiscal year 1944 the Army Service Forces transferred 5.4 billion dollars worth of military supplies procured by them to the other United Nations. Of this total, 75 per cent were ordnance materiel, which included 13,000 tanks, 300,000 combat and general purpose vehicles, and more than a billion rounds of ammunition. Other lend-lease items transferred included 5.7 million pairs of shoes, 2,300 mules, 20,000 tons of leather, 25 million yards of woolen material, 45 million yards of cotton, and 139,000 field telephone sets. The United Kingdom received 62 per cent of all these military supplies, and Russia received one-quarter of the total. Total supplies transferred to the French in North Africa were valued at 275 million dollars, while the Chinese Government, because of Japanese control of all transportation routes, except one by air, received supplies worth only 140 million dollars.

Reverse Lend-Lease

In return, the volume of supply assistance provided by other nations to the United States under reverse lend-lease expanded sizeably during the year; the total amounted to some 2 billion dollars. In the United Kingdom, for

example, many supplies and facilities needed by American troops were provided by the British Government prior to D-day. The American Army in the British Isles received virtually all its housing accommodations, airfields, hospitals, repair depots, and other necessary facilities under reverse lend-lease. The Army also received without cash payment numerous services such as ocean and inland transportation of troops and cargo, communications services, utilities, and civilian labor.

From Australia the American forces in the Southwest Pacific at the end of the year were receiving supplies at the rate of a million dollars a day. More than 90 per cent of all food requirements in the area were provided by that country. The other major items included clothing, landing craft, barges, and small ships. Australian production proved adequate to fill all Army needs in the Southwest Pacific area for tires, which were made from a crude rubber ideally suited for coral terrain. In the China-Burma-India Theatre tire requirements were met by the Indian Government.

The War Department also received patent rights and technical information under reverse lend-lease. Upon one occasion certain vital radar equipment desired in the Southwest Pacific was obtained from the United Kingdom, flown to the United States, and then flown to the Pacific.

Civilian Supply

A particularly troublesome question for the Army Service Forces in 1944 was civilian supply in occupied areas. Military concern with the civilian economy overseas was limited to the period of active military activity. Thus, supply of the civilian population in North Africa was not a military responsibility in the fiscal year 1944.

Because of shipping difficulties, the War Department was forced to limit supplies to those items essential to prevent disease and unrest -- in short, to those supplies imperative for the success of military operations. The principal area occupied during the year, southern and central Italy, was a deficit area -- requiring more supplies than it produced. The major industrial and agricultural parts of the country remained under German occupation.

The extensive bombing of port and transportation facilities in Sicily and southern Italy further complicated the distribution of civilian supplies. The task of assisting these areas in rehabilitation while preventing starvation and disease, was immense.

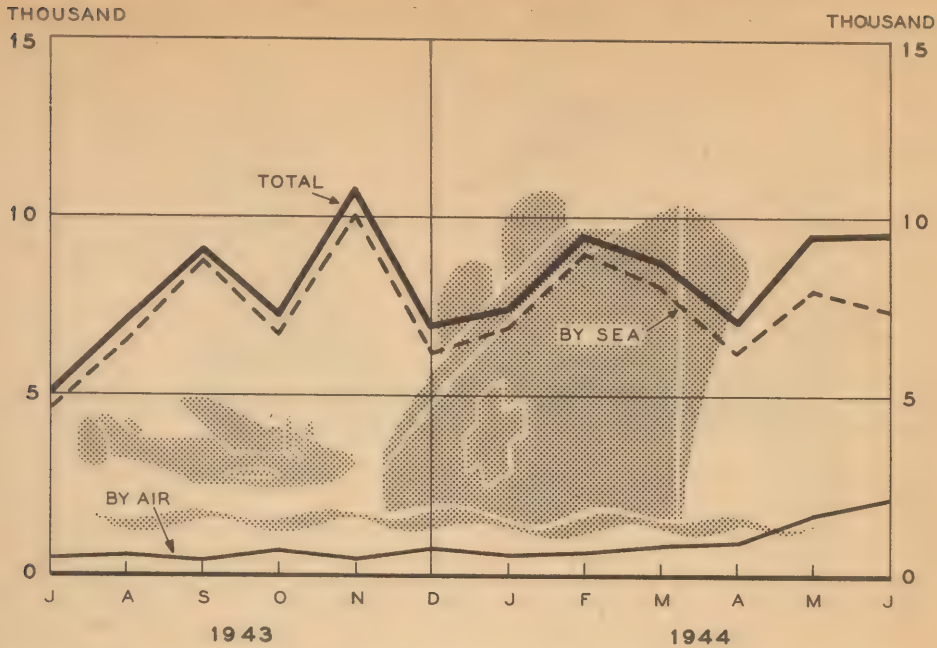
Altogether, the Army Service Forces shipped about 500,000 tons of supplies to Italy for civilian consumption in the year ending 30 June 1944. On a tonnage basis, 96 per cent were foodstuffs. The remainder included medical and sanitation items, and some clothing and manufactured articles. In this activity such agencies as the State Department, the Foreign Economic Administration, the War Food Administration, the War Shipping Administration, and the United Nations Relief and Rehabilitation Administration worked with the War Department.

MEDICAL SERVICES

Little that the Army Service Forces did was of more interest to the families of our soldiers than the provisions made for adequate medical care. Because of its tremendous importance, both to the health and welfare of the persons who are fighting this war and to long-term scientific progress, the Army's medical program deserves special consideration. More than one-third of the nation's medical personnel and facilities have been mobilized in the Army Medical Corps to look after the health of the men and women in the Army. Its achievements have been outstanding. Medical science has made notable progress in the course of the war.

The health of the Army in the continental United States and throughout the world remained very satisfactory during the past fiscal year. The non-effective rate, which measures the proportion of soldiers absent from military duty at any one time because of medical attention, was 37.7 men per 1,000 in the United States. This was slightly higher than the rate in 1943 because it included the time lost from military duty by men evacuated from overseas. If these had been excluded, the non-effective rate would have been somewhat lower than in 1943. Non-effective rates in overseas theatres were only a little higher than those in this country. Non-battle injuries overseas continued to cause more casualties up to 30 June 1944 than battle wounds.

PATIENTS EVACUATED FROM OVERSEAS

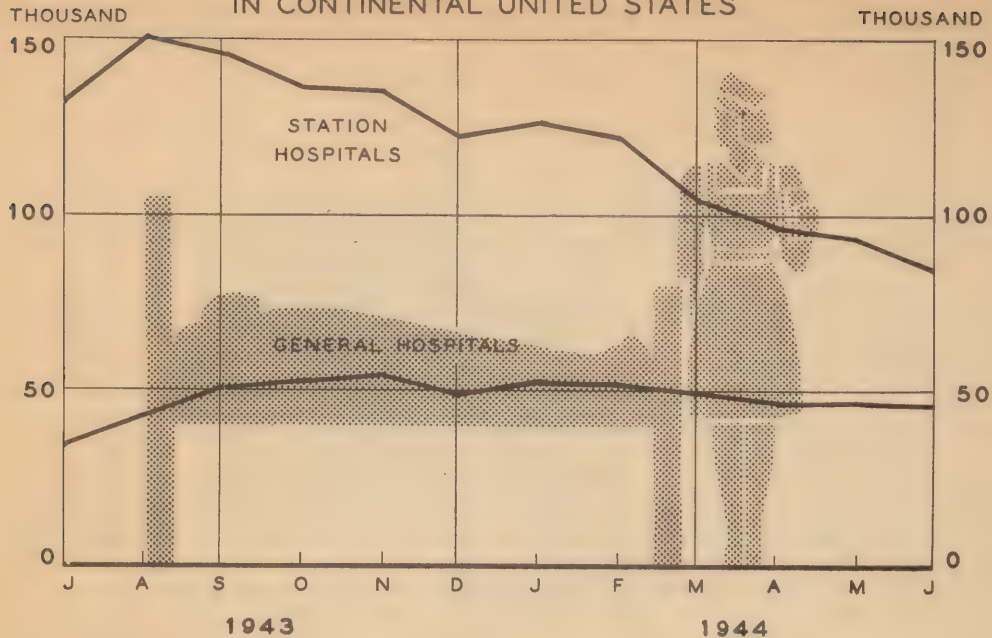


During 1944 some 100,000 patients were evacuated from overseas, of whom about 90 per cent were returned by sea. The Army had seventeen hospital ships in service by the end of the fiscal year and eleven under construction for delivery within a few months. In addition to those evacuated on hospital ships, patients were returned in troopships when their injuries permitted. The Army continued its policy of sending overseas wounded and injured soldiers to the general hospitals nearest their homes except in those cases requiring specialized treatment by a particular hospital.

On 30 June 1944, the Army Service Forces were operating sixty general hospitals scattered throughout the United States with a total capacity of 100,000 beds. Forty-four of the sixty hospitals specialized in particular treatment; for example, nineteen were neuropsychiatric centers; three specialized in radium therapy, six handled plastic surgery and ophthalmologic surgery; and eighteen, neuro-surgery.

A well-balanced physical, educational, and occupational reconditioning program for convalescent patients in all Army Service Forces hospitals was established during the year. The purpose was to return men to duty or to their homes in the best possible state of physical and mental fitness.

HOSPITAL BEDS OCCUPIED IN CONTINENTAL UNITED STATES



Special measures were taken to assist the blind and the deaf. The whole emphasis was upon hastening the patient's recovery. Special convalescent hospitals were also created to release bed space in regular hospitals.

As soon as possible, bed-ridden patients participated in activities to restore morale and stimulate interest. Later, when patients no longer required full hospitalization, they were placed in barracks-type buildings, clothed in duty uniforms, and treated as soldiers. Educational courses -- employing films, reading lectures, and discussions -- were designed to give the convalescent soldier a clear conception of the purpose of this war, and also to promote a general cultural interest. Occupational therapy aided in restoring functions to disabled joints and muscles, and suggested possible vocational pursuits.

Penicillin

The most important single medical development of the year was the evolution of penicillin from a little-known laboratory curiosity to a life-saving drug of great value in military medicine. Perhaps never before in the annals of medicine has the gap between clinical experiments and practical application of a drug been bridged in so short a time.

Although many agencies played a part in developing penicillin and in establishing its clinical uses, none did more to confirm and extend its range of usefulness than the Army Medical Department. The Army program of penicillin experimentation began at Bushnell General Hospital in April, 1943. Later, in June, 1943, experimentation commenced at Halloran General Hospital. Both hospitals served as "schools" in penicillin therapy where medical officers from twenty-four other hospitals were trained to carry on penicillin studies of their own. When these two centers began their work, the supply of penicillin was so meager that the drug was doled out with strictest economy.

Among the diseases selected for early penicillin treatment were Osteomyelitis and other wound and systemic infections, and sulfa-resistant gonorrhea. In the latter treatment it was found that penicillin could achieve prompt cures in practically 100 percent of all cases. These uses alone established penicillin as a therapeutic agent of immense value in military service.

As a result of the intensive studies undertaken in Army hospitals in the United States, it was felt that sufficient evidence had been obtained to justify the use of penicillin in overseas theatres. It was realized that if penicillin could be administered as soon as possible after the injury, infections might be more effectively controlled and recovery hastened. Since penicillin has been taken to the front lines, duration of hospitalization has decreased and a greater number of men have returned to duty. At first, the use of penicillin was greatly limited in combat zones by the need for refrigeration and by the very short effective life of the drug. These difficulties were overcome when the potency period was extended from three to nine months and refrigeration equipment became available.

Army experiments have demonstrated that penicillin is not in any sense a cure-all. It has proved of no value in the treatment of malaria, for instance, one of the Army's leading health problems. But its range of effectiveness makes its value self-evident. The potentialities of penicillin have not been fully explored, and in the year ahead even greater achievements may be realized.

In the first quarter of the fiscal year, 32,900 ampules of penicillin were produced: by the last quarter, production amounted to 2,900,000 ampules. The number of producing plants increased from seven in July, 1943, to twenty-two in June, 1944. Refinements in manufacturing processes greatly increased the purity of penicillin. Impure production was cut from 90 per cent of output to 40 per cent. At the same time the price of penicillin decreased from \$20 per ampule to \$2.50 in June, 1944.

DDT

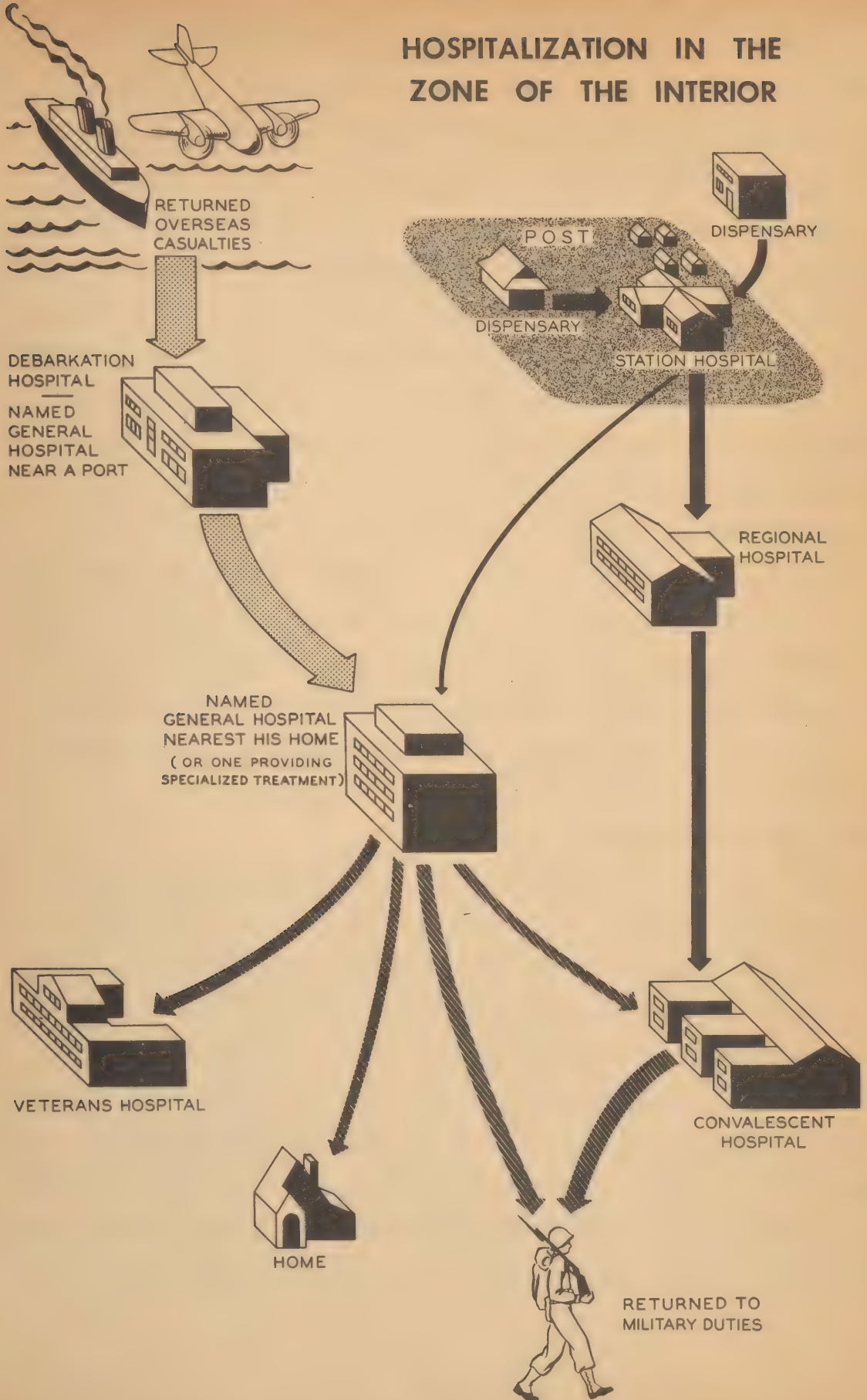
The new insecticide, DDT, not only proved successful in combatting the Army's "crawling enemies" -- lice, flies, bedbugs and other insects -- but gave promise of being an important weapon against the malaria-bearing mosquito. DDT has virtually revolutionized methods of insect control. A single dusting of clothing with the powder is effective for a period from one to six months, even after several washings. An individual can be deloused with it in thirty seconds. These features make DDT of immense significance in combatting typhus epidemics. The threat of such an epidemic, for example, was stamped out at Naples in November, 1943, when more than a million susceptible citizens were treated with the powder.

Neuropsychiatry

While neuropsychiatric disorders continued to be a major medical problem, marked strides were made during the past fiscal year in lessening their magnitude. A large percentage of combat mental casualties were returned to duty as a result of early treatment. Increasing emphasis upon proper job assignment enabled many individuals with neuropsychiatric difficulties to remain in the Army and render useful service.

Early in the war Army psychiatrists were primarily concerned with the disposal of psychiatric cases. Attention has now shifted from diagnosis and disposal to prevention of mental casualties. Length of combat, exhaustion, extremes of temperature, mental fatigue, misassignment, poor leadership, lack of personal conviction about the necessity for fighting the war, and other factors were found to precipitate psychiatric disorders.

HOSPITALIZATION IN THE ZONE OF THE INTERIOR



Preventive psychiatry was undertaken primarily through an educational program. Military personnel were taught the principles of good mental hygiene. Radio programs, films, posters, and other information materials impressed upon the soldier his individual stake in the outcome of this war.

One principle of treatment adopted was to keep psychiatric patients out of hospitals. It was well recognized that hospitalization exaggerated the concept of illness in a patient's mind. In consequence, cases were treated on an outpatient basis, but in a military atmosphere and under strict discipline. Every case was regarded as a medical emergency, since immediate treatment often prevented symptoms from becoming fixed. In addition, every effort was made to modify or remove situational factors -- such as misassignment -- believed to have precipitated mental disorder. Increasing use was made of group psychotherapy, including occupational therapy, recreation, athletics, and music. Every case was regarded as salvageable until proved otherwise, and treatment priority was given to those cases expected to return to duty. Because of widespread public misunderstanding of psychiatry, and particularly of the term "psychoneurosis," efforts were made during the year through press, radio, and lectures to correct the public's conception about mental illness.

Other Medical Developments

Mortality among battle casualties in this war, in comparison with previous wars, has been materially reduced through advances in surgical technique, the use of blood plasma and whole blood in operations, and other developments. Studies of battle wounds showed that despite changes in weapons, little change had occurred in the distribution of wounds throughout the various regions of the body. The extremities -- arms and legs -- still received most wounds. About 80 per cent of wounds in North Africa were caused by high explosives and about 20 per cent by small arms. During the year several advances were made in the field of neurosurgery, particularly in the repair of skull defects with tantalum plates and in the handling of peripheral nerve injuries.

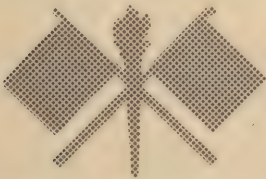
OTHER MAJOR SERVICES

Communications Network

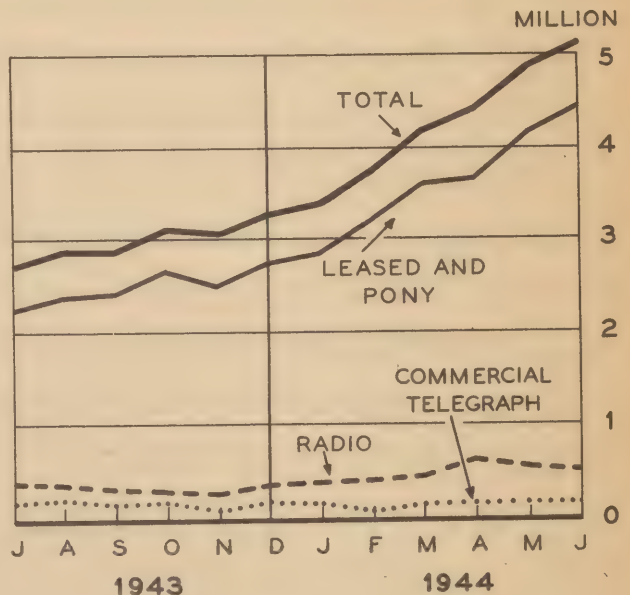
Nothing has been more outstanding in the overall conduct of this war than rapid communications. Practically instantaneous service has been provided between theatre headquarters and general staffs. The same service has speeded the work of the Combined Chiefs of Staff at such conferences as Casablanca, Quebec, Cairo, and Teheran. Indeed without the development of rapid communications, it is doubtful whether the concept of the Combined Chiefs of Staff would have had reality.

By 30 June 1944 the Army Communications Service, operated by the Signal Corps, was the backbone of a signal communications system unrivaled in the annals of warfare. In fact, the system is the most extensive of any type yet created. Fanning out from the War Department Signal Center in Washington, the network criss-crossed the nation and reached into every major overseas headquarters. Messages on all phases of the war effort were transmitted with unprecedented speed. During the observance of the centennial of the telegraph, for instance, the Signal Corps sent a message around the world through five relay centers in $3\frac{1}{2}$ minutes.

MESSAGES HANDLED* BY WAR DEPARTMENT SIGNAL CENTER



* EQUATED TO 30-WORD
MESSAGES, THE AVERAGE
LENGTH OF COMMERCIAL MESSAGES



The most important single communications service development during the year was the conversion of many overseas wireless circuits to radio teletype-writer. These revolutionary facilities permitted the effective use for the first time of standard wire teletypewriters on radio channels, thus eliminating slow manual methods which required highly skilled operators.

The number of messages handled by the War Department Signal Center during the year increased from 2.7 million messages to over 5 million. The time to transmit a fifty-word message was reduced from more than forty minutes to seven. Personnel requirements at the Signal Center were reduced more than 40 per cent. Wasteful parallel sections of independent networks were absorbed into a single command and administrative network.

The telephone line along the Alaska Highway was completed during the year and a new line was begun from Calcutta into China.

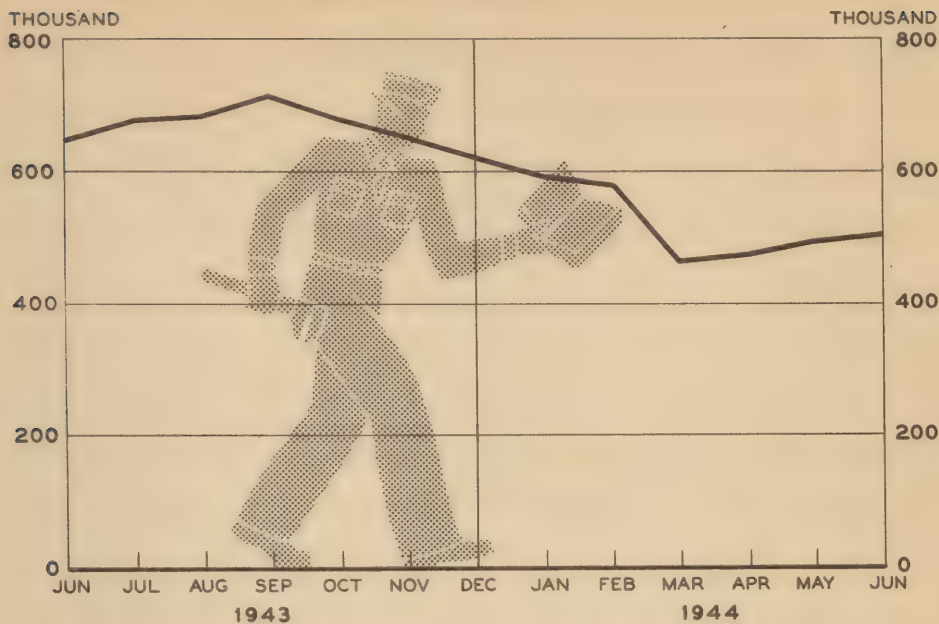
Telephoto service for the transmission of visual material was extended to all major theatres during the year. On D-day pictures of overseas military action were available for publication simultaneously with news stories.

Training

The training job of the Army Service Forces in providing overseas commanders with their service personnel was hardly less important than supplying the Army with a vast variety of goods and services needed to fight a modern war. In theatres of operations the ultimate responsibilities for supply, servicing, and administration -- similar to those performed by the Army Service Forces for the War Department as a whole -- were carried out by these troops.

Service units operating with combat troops were trained by the Army Ground Forces and the Army Air Forces, but much of the personnel was technically trained first by the Army Service Forces. Service units working in supply zones behind the front lines were entirely trained by the Army Service Forces. In September, 1943, there were a total of 700,000 persons being trained by the Army Service Forces; by June, the number had dropped to about 500,000. Within this total

ASF MONTHLY TRAINEE STRENGTH ALL ASF INSTALLATIONS



personnel, about half were receiving training in troop units. These units consisted of 130 different types organized to perform as many different functions overseas.* Altogether, over one million persons completed training under the Army Service Forces during this one fiscal year.

Because the total size of the Army was limited by the War Department, and since the first need was for combat troops, the number of service troops scheduled for training was strictly controlled by the War Department. On the other hand, the demands from overseas for supply troop units were so great that training activities by the Army Service Forces were constantly enlarged over the past two years. Continual change made administration more difficult.

On one occasion during the year a group of officers from Army Service Forces headquarters were sent to the North African Theatre to convert one ground force division and several antiaircraft battalions into service units -- principally Engineer and Quartermaster battalions. Moreover, overseas commanders requested that many troop units trained by the Army Service Forces be sent overseas before their training program was completed.

Schools were operated by the Army Service Forces to provide advanced technical training to individual soldiers who were already assigned to units or who

had completed basic training. Here the courses ranged from malaria control and the repair of radar equipment to automotive maintenance and the operation of railway trains. The Army Service Forces also provided special courses for men inducted into the Army who did not meet minimum literacy requirements. About 75 per cent of the men assigned to this training satisfactorily completed the course in 60 days or less. A peak of 31,000 men were included in these courses in February, 1944.

General Training

The Army Specialized Training Program for teaching technical, language and other specialized subjects in colleges and universities had 142,000 students enrolled in January, 1944. This number was curtailed to 35,000 by June when the demand for alert younger men in the ground forces could be filled from no other source. Only the training in medicine, certain advanced engineering courses, and in the reserve program for those under 18 years of age was continued.

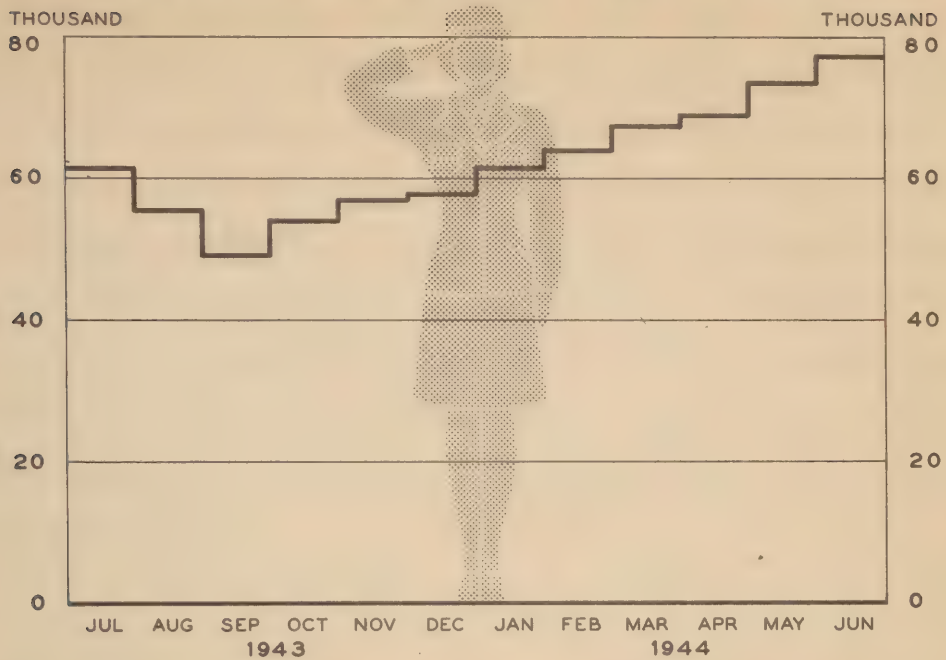
The schools of the nation cooperated during the year in providing courses designed to prepare men for army specialties. For students in general high schools, pre-induction training stressed courses in electricity, shop work, radio, English, mathematics, physical education, and map reading. Out-of-school programs also were conducted which provided part time vocational courses. On the basis of available figures it is estimated there were more than two million high-school student enrollments in pre-induction training courses.

A program of community orientation meetings for prospective inductees in the Army was developed and tested by the Army Service Forces in the fall of 1943. Its success led to nation-wide adoption of orientation meetings sponsored by the Office of Civilian Defense. These meetings contributed greatly to preparing the individual for the shift from civilian to Army life.

WAC Recruiting and Training

While recruiting the desired number of women for the Women's Army Corps has entailed many difficulties, both the number and quality of enlistments during

STRENGTH OF WOMEN'S ARMY CORPS



the last six months of the fiscal year showed a marked improvement over the earlier part of the year. The conversion from the Women's Army Auxiliary Corps to the Women's Army Corps on 1 September 1943 required each individual enrolled in the former to reenlist in the WAC. The total strength declined from 64,000 to 50,000 women at that time. Recruiting campaigns conducted both by the Army Service Forces and the Army Air Forces raised the strength to 75,000 in June, 1944. Wherever these women soldiers have been on duty, they have contributed materially to the administrative efficiency of the Army Service Forces. During the year some 35,000 enlisted women received their basic training at WAC training centers run by the Army Service Forces. About 7,000 women were also given advanced technical training. A total of 748 women received commissions as second lieutenants upon satisfactory completion of the officer candidate's course at Fort Oglethorpe, Georgia.

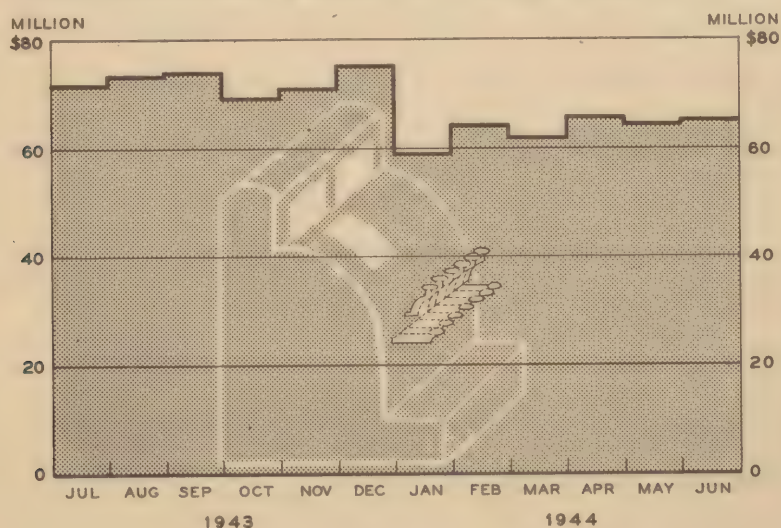
Personal Services

Practically every kind of necessary service which people take for granted in civilian life must be provided to soldiers living under military authority. Besides his supply of clothing, food, weapons, and equipment; his transportation; his shelter; and his medical care; the soldier has other wants which the

Army Service Forces must undertake to meet. The soldier is still a human being -- he desires entertainment and relaxation, a place to shop for cigarettes and other items, mail service, security for his family, an opportunity for religious worship, and a host of other personal arrangements. All these services were arranged in the first instance by the Army Service Forces.

During the past fiscal year the attention of the Army Exchange Service shifted increasingly to overseas activities. The number of overseas post exchanges increased from 109 to 288 while those in the United States fell from 743 to 636. Overseas outlets or branches operated by exchanges at the close of the year amounted to 5,000, compared with 5,920 outlets in this country. Gross domestic sales in June, 1944, were \$65,000,000, while overseas sales amounted to another \$21,000,000. During the entire year procurement offices in the United States purchased \$89,000,000 worth of supplies for resale in overseas post exchanges. A gift service was established whereby soldiers might order gifts for friends and relatives in the United States through mail-order catalogues. The Christmas catalog sent out to Theatres of Operations before the end of the fiscal year contained more than 200 gift suggestions ranging from toys to war bonds. Preparations were made to handle an expected two million order for Christmas of 1944.

POST EXCHANGE SALES IN THE UNITED STATES



About 9 million dollars worth of athletic equipment was distributed overseas and in the continental United States by the Army Service Forces during 1944. More than 14 million books in especially published pocket size went overseas. Magazines in overseas editions were also provided. Handicraft kits were designed and sent overseas as off-duty hobby materials for soldiers. The words of popular songs were reproduced and distributed. Eight thousand packages of twenty phonograph records each were shipped overseas in the month of June alone. During 1944, 178 units of professional entertainers composed of a total of 852 people were routed overseas. Of this total, 93 were stage, screen, and radio stars who traveled as guest artists and the remaining were salaried personnel employed by U.S.O. Camp Shows, Inc.

Under an agreement with the motion picture industry the U.S. Army Motion Picture Service obtained sufficient prints of movies to show pictures in all War Department theatres in the United States within thirty days of their national release. For overseas audiences the American film industry donated 728 prints of new releases each month.

Four feature-length war information films were produced and released in 1944. One of these -- the Battle of Russia -- was distributed for public showing by the motion picture industry. It was also widely shown in England and Russia.

The Army weekly, YANK, by the end of the year was published in fourteen editions in eleven countries; circulation expanded from 400,000 to over 1,500,000 copies per week. NEWSMAP was another source of information to troops, showing each week the progress of the war and presenting on the reverse side essential maps and other graphic material for permanent display. Its circulation increased from 83,000 to 210,000 a week. To keep up a steady flow of objectively handled news and features to Army radio stations and Army newspapers all over the world, the Army News Service sent out an average daily total of 87,000 words by cable, by wireless, and by airmail. Editors of some 2,000 camp newspapers in the United States were provided with art work, feature material, and editorial suggestions.

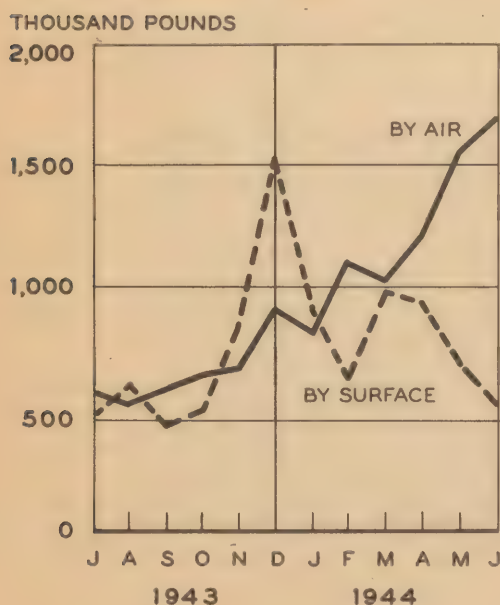
Radio broadcasting reached even the most distant outposts during the year. A transmitter was set up on the Anzio Beachhead, for example, at a time when the forces there were under fire. At the beginning of the year there were no radio stations serving the American Forces in the China-Burma-India Theatre; at the end of the year there were twelve. Each week forty-two hours of programs featuring the best entertainers and artists were transcribed for rebroadcast overseas to the armed forces. Short-wave broadcasting totalled more than 2,200 hours in the month of June, 1944.

The Armed Forces Institute provided 141 correspondence courses in high school, technical, and college subjects; some 200,000 servicemen and women were enrolled during 1944. The Institute also distributed brief introductory training manuals in twenty-four foreign languages together with advanced manuals in five languages. On D-day of the Normandy invasion, the assault troops carried with them a newly published guide to France.

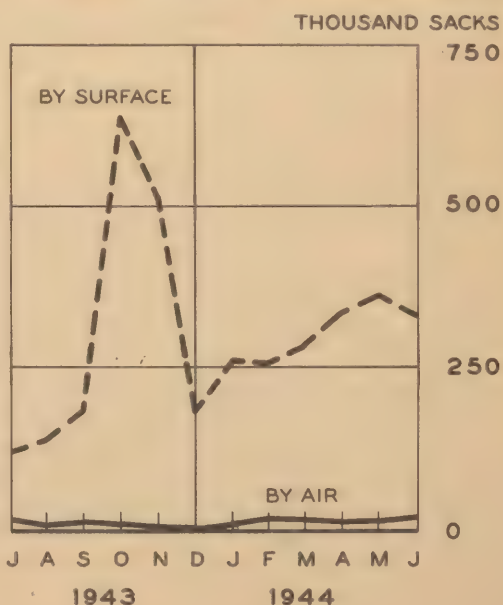
The postal service run by the Army Service Forces grew to huge proportions in 1944. Mail despatched overseas doubled during the year -- 20 million pounds of letter mail and 270 million V-mail letters. A new system was created whereby

MAIL DISPATCHED OVERSEAS

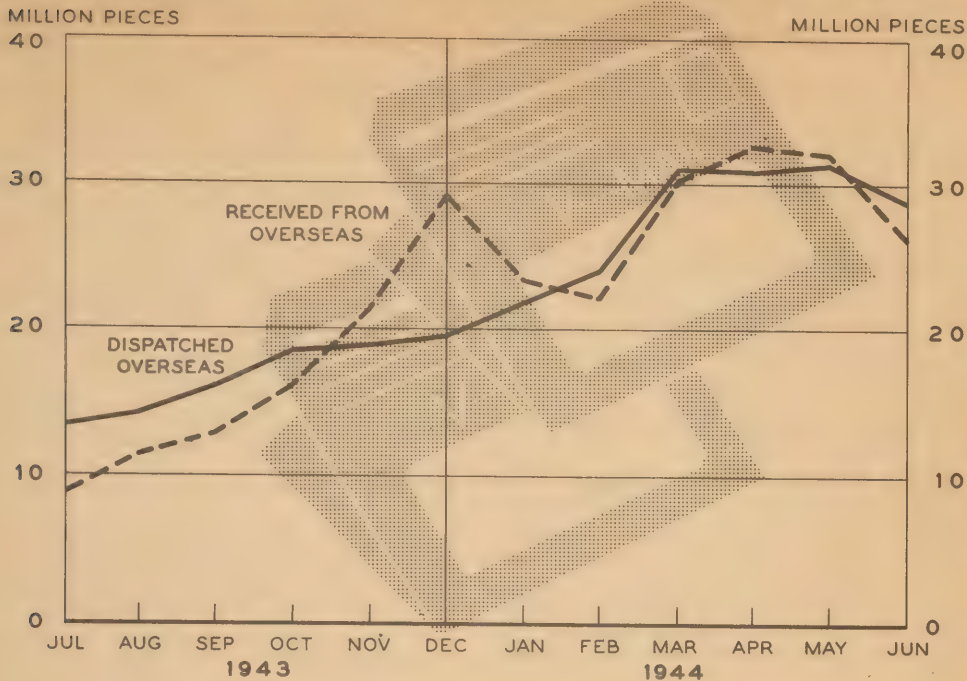
LETTER MAIL



PARCEL POST & PERIODICALS



VOLUME OF V-MAIL DURING FISCAL YEAR 1944



each overseas theatre was guaranteed a minimum allotment of space for the air transport of mail and might devote a larger proportion of its available air space to mail if it so desired. Periodic tests revealed that the time required for mail to reach overseas destinations was being steadily reduced. For example, it took fifteen days for a V-mail letter to reach Algiers in August 1943 and only seven days in May, 1944; for London the time was cut from nine days to eight days. For Brisbane, Australia it was cut from twelve days to nine days; for Karachi from thirteen days to ten days. Of all the activities and services performed by the Army Service Forces, the delivery of mail from home to soldiers was probably the one most generally appreciated.

The Corps of Chaplains has continued to serve troops wherever assigned. The strength of the Corps expanded from 6,000 to 7,500 during the fiscal year 1944. Attendance figures indicated that more than one million soldiers a week attended church services conducted by Chaplains. The Secretary of the General Commission on Army and Navy Chaplains declared in a statement on 28 February, 1944: "Our young men are better looked after morally and spiritually than any other Army and Navy in the history of the world."

In February, 1944, the Army Service Forces created a personal affairs organization to provide all army personnel and their dependents with adequate information and guidance on personal matters. A personal affairs officer was appointed at each post and camp in the United States. Women's Volunteer Committees aided in the program. Soldiers were assisted, directed, or guided to appropriate agencies in obtaining necessary aid in meeting personal problems. About 45 per cent of all inquiries concerned family allowances and allotments. Another 10 per cent were requests for financial assistance.

By 30 June 1944 there were 1,100 legal assistance officers at Army posts in the United States and overseas. Numerous civilian lawyers have volunteered their services to help the legal assistance officers appointed from within the Army. This program of providing legal advice to soldiers greatly benefited the morale of all service men and women.

In all these and other ways the War Department through the Army Service Forces has sought to promote the welfare of the individual soldier.

Engineering Services

All War Department facilities in the United States are built by the Army Service Forces. The Army's war construction program was virtually completed in the fiscal year 1944. In the previous fiscal year the volume of planned construction had risen to its war peak of 9.6 billion dollars. But in 1944

WAR CONSTRUCTION UNDER CORPS OF ENGINEERS

FISCAL YEAR 1944



all newly authorized construction amounted to less than half a billion dollars, and by June, 1944, actual construction came to only 32 million dollars. About 40 per cent of new work authorized during the year was for airfields of the Army Air Forces, and another 40 per cent was for industrial facilities necessary to produce newly developed weapons.

The gravel surfacing of the Alaska Highway was completed during the year. At the same time all but a few of the temporary bridges were replaced by structures of a permanent or semi-permanent nature. Further construction on the Pan-American Highway by the Corps of Engineers was terminated in October, 1943, because of the favorable strategic situation. All major work on the Canol Project was also completed.

Expenditures for the operation of posts in the United States increased during 1944. The Army policy in constructing military posts was to cause the least possible dislocation to the civilian population in surrounding communities. Accordingly, civilian health and welfare were not menaced by overloading local utility systems with extraordinary demands for Army services. All necessary plumbing, heating, and sanitation facilities were provided at posts. Fire protection was maintained. Cold storage facilities preserved foodstuffs. All this plant as well as roads, railroads, warehouses, and barracks had to be maintained in satisfactory operating condition.

Substantial economies in repair and utility operations were realized during the year by cost control, technical inspections, and the establishment of uniform standards of maintenance. The operation of military posts became a major job of the Army Service Forces during the fiscal year.

MISCELLANEOUS OPERATIONS

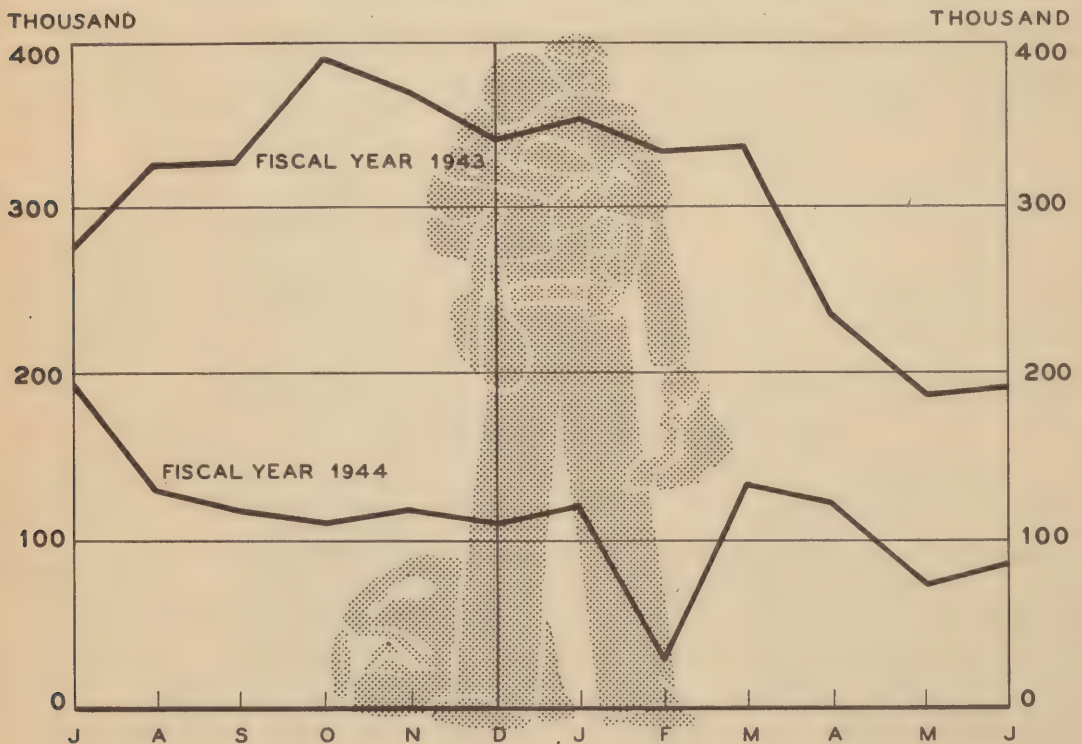
The principal responsibilities of the Army Service Forces have been described. But there are many other duties assigned to the Army Service Forces, all of them essential to the orderly and proper functioning of a great military establishment. Each of these jobs has its particular part to play in furthering the war effort and many of them are in themselves very large organizational undertakings.

Induction and Assignment

Inductions into the Army slackened during the fiscal year - from nearly four million in 1943 to only one million in 1944. The number of induction stations operated by the Army Service Forces was accordingly reduced from ninety to seventy-nine and the number of reception centers from thirty-eight to twenty-six. On the initiative of the War Department, plans were placed in effect which resulted in the induction of more men under twenty-six and in the assignment of personnel from reception centers to the Army Ground Forces, the Army Air Forces, and the Army Service Forces largely on the basis of physical condition.

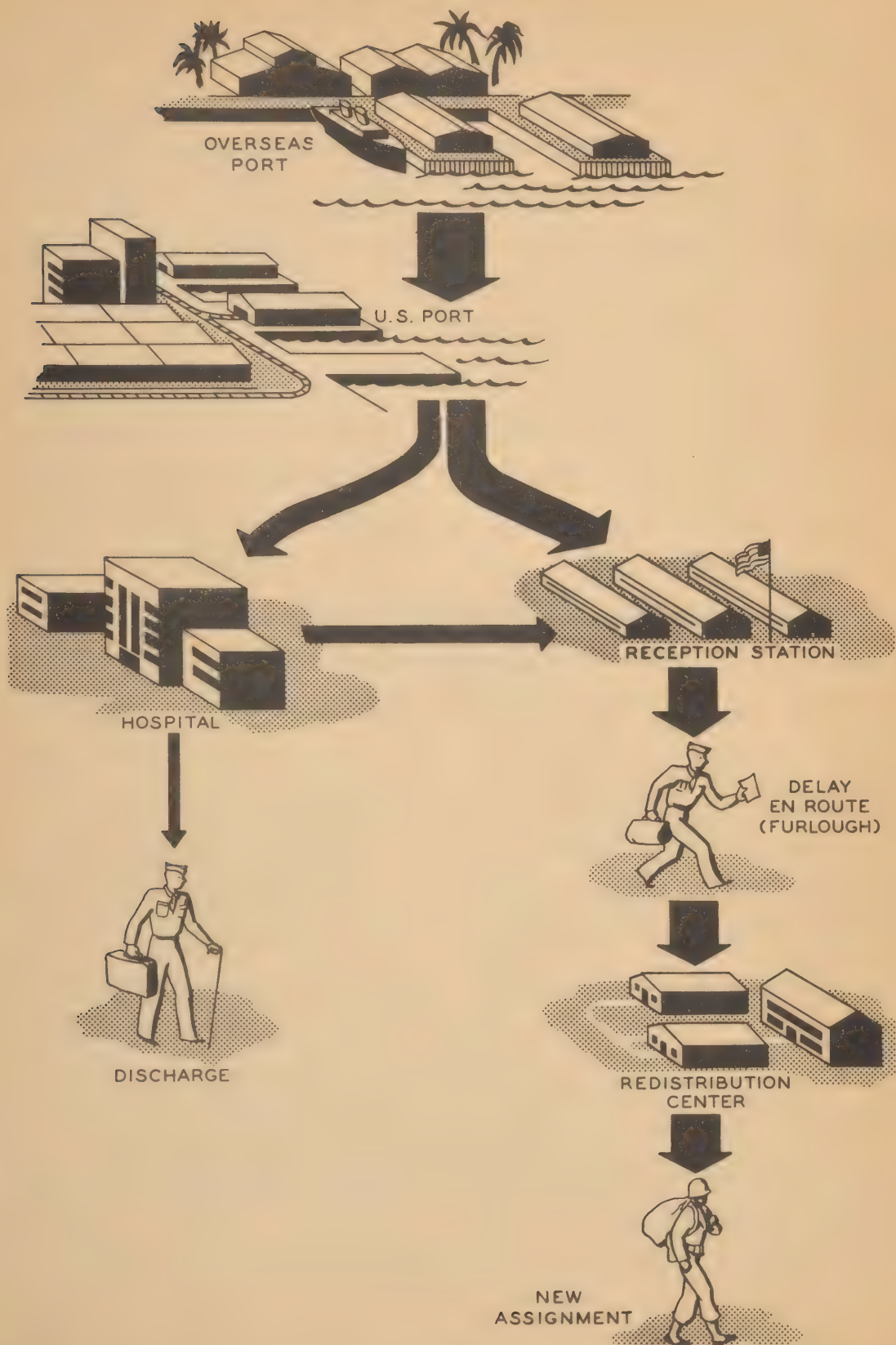
The Adjutant General's Office created personnel audit teams to visit stations throughout the United States in order to improve the classification and assignment machinery of the Army and to insure that the right person was put in the right place. At the end of the year fourteen special reception stations were in operation to assign personnel returned from overseas under the rotation policy.

INDUCTIONS INTO THE ARMY



RETURN OF PERSONNEL FROM OVERSEAS

30 JUNE 1944



Military Justice

Particular attention has been given since the formation of the Army Service Forces to the whole system of military justice. Early in the war effort several principles were established for the guidance of commanding officers with disciplinary authority. In the first place, all unnecessary trials were to be avoided. There was to be no wholesale use of general courts-martial resulting in dismissal and imprisonment of soldiers. Instead, commanding officers were encouraged to use summary and special courts entailing less severe punishments. It was also pointed out by the War Department that discipline was a function of leadership, not of the system of military justice.

Other guiding principles were that all trials should be prompt and impartial. Punishments were to be appropriate and uniform, but not unnecessarily severe. Convicted men were to be restored to military duty if possible, and finally, the confidence of the American people in the system of military justice should be retained at all times.

During the past year, the results of the efforts to obtain prompt trials, fair sentences, and enlightened prison administration have been especially gratifying. Careful controls, including greater selectivity in appointing court members and thorough review of sentences in the Judge Advocate General's Office, have contributed to the fairness with which proceedings have been conducted. A close tie between clemency action and the review boards has likewise tended toward a surer administration of justice. It has been emphasized that penalties for officers and enlisted men committing the same offense must be comparable.

During the calendar year 1943 there were 9 general courts-martial per thousand soldiers; in the first six months of 1944 the ratio was 3 per thousand. In the calendar year 1943 the average lapse in time for the Army as a whole between date of confinement of a soldier and the date of his sentence by general court-martial was 28.8 days; in the first six months of the calendar year 1944 this was reduced to 23 days.

Consultants in prison administration have brought the best civil practices into the Army and the combination of experience bids fair during the coming year to develop the best penal system in the world. The success of the rehabilitation program has been noteworthy in reclaiming both good soldiers for the Army and good citizens for the country.

During the fiscal year 1944 some 22,000 persons were tried by general courts-martial throughout the Army. The ratio of general courts-martial to Army strength was the lowest since the last war, indicating the increased reliance upon other disciplinary measures. A total of 18,340 cases of general courts-martial were received in the Judge Advocate General's Office.

By 30 June 1944 some 19,000 general prisoners had been sent to the Army's rehabilitation centers. As a rule, prisoners sentenced to six months or more confinement were placed in rehabilitation centers if there was any possibility of restoring them to duty. In effect, confinement at a rehabilitation center amounted to an indeterminate sentence, since a man was released whenever it was decided he would make a good soldier. By the end of the year some 6,000 general prisoners had been returned to military duty, of whom only four per cent had again become general prisoners - an outstanding record.

Legal Services

Equal attention has been given by the Army Service Forces to prompt and competent legal action in civil suits, and to the early and just disposition of claims against the War Department for damages. During the fiscal year 1944 the Judge Advocate General represented the War Department in 171 formal proceedings. His office worked with the Department of Justice in handling 1,393 court cases affecting the interests of the War Department.

Many legal questions have arisen in connection with military operations overseas. The Judge Advocate General cooperated with the Department of State in handling agreements governing the conduct of American troops in foreign territory. A unique field of legal research concerned the punishment of war criminals, including the definition of war crimes, appropriate tribunals for the

trial of offenders, and procedures in the investigation and collection of evidence.

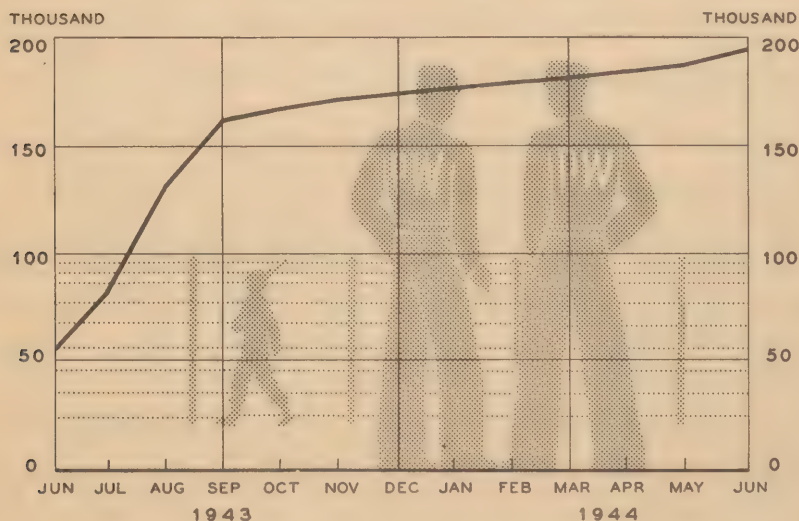
An Act of Congress approved 3 July 1943, permits the War Department to settle all claims from civilians for injury to person or damage to property not in excess of \$1,000. By delegating authority to service commanders to handle these cases under the supervision of the Judge Advocate General, the length of time between filing of claim and approval or disapproval has been reduced from 125 days to 75 days. During the year some 43,000 claims were considered, of which 25,000 were approved involving a total outlay of 3.4 million dollars. Overseas some 26,000 claims were filed, of which 20,000 were approved for a total outlay of 2.3 million dollars.

All legal activities require a careful balancing of the interests of the government and of the individual - with two objectives always in mind, speed of accomplishment and fairness to all concerned.

Prisoners of War

During 1944 the prisoner of war population in the United States increased four times, from 50,000 to nearly 200,000. About three-fourths of all these were Germans. Prisoners were scattered among many camps and special efforts were made to employ them on essential labor. Prisoners worked in laundries,

ENEMY PRISONERS OF WAR HELD
IN CAMPS IN THE U. S.



carpenter shops, bakeries, warehouses, and clothing shops. They ran the facilities in their own compounds. Off Army posts, prisoners were used in planting, cultivating, and harvesting crops, and in the lumber industry. By the end of the year 80 per cent of all enlisted prisoners of war were working daily. A considerable portion of the remainder were sick or in process of transfer.

Special precautions were taken to insure that prisoners of war were employed by private contractors only when civilian labor was not available. Requests for the use of prisoners of war by private employers were certified by the War Manpower Commission and the War Food Administration. Contractors paid the prevailing wage for prisoner of war labor. The difference between the prevailing wage and the prisoner's wage is paid into the United States Treasury. A system of incentive wages was set up during the year whereby certain prisoners might increase their wage from 80 cents a day to \$1.20 a day by increased output.

In order to decrease the number of guards required, security precautions were relaxed, but escaped prisoners were few and quickly apprehended. By 30 June 1944, 421 prisoners of war had escaped from camps in the United States. As of that date, all but eight of these had been recaptured. The prisoners still at large were men who had escaped during the last few days of the year.

With the change in the status of the Italian government from that of an enemy to a co-belligerent, nearly 30,000 Italian prisoners of war were organized into Italian Service Units in March 1944. These men were given distinctive uniforms and permitted to visit cities off military posts in groups accompanied by American officers. These units worked in ports of embarkation, Quartermaster depots, Ordnance depots, and other installations. In April the prisoner of war rates of pay were revised so that enlisted men in Italian Service Units might receive \$24 a month. Officers were paid from \$44 a month for lieutenants to \$64 a month for majors and above.

All local commanders of the Army Service Forces using Italian Service Units were unanimous in their opinion that these units were of major assistance in

carrying out storage and loading operations. The status of these men was little understood throughout the country, and this was the cause of a number of attacks upon Italian personnel in local communities. Such incidents are gradually disappearing.

Most prisoners of war held in the United States during the fiscal year 1944 were captured in North Africa. As the land assault upon Europe gains momentum, the task of the Army Service Forces in guarding and using prisoners of war will probably become larger.

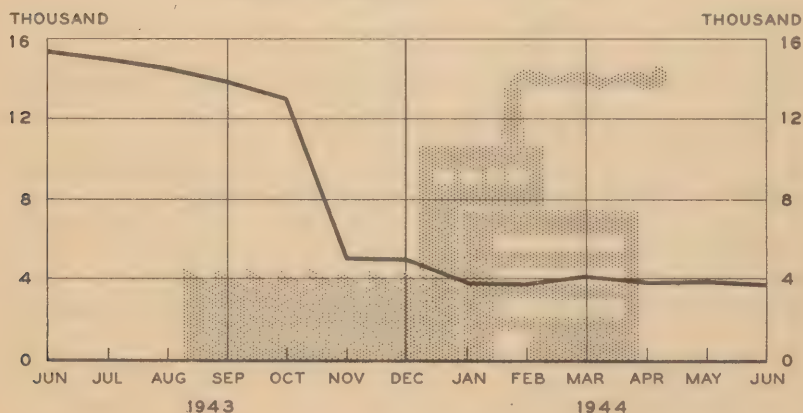
Internal Security

On the theory that desirable security measures were well understood and that the new offensive stage of the war warranted a relaxation of many internal security safeguards, the War Department, in November 1943, greatly curtailed its inspection of industrial plants. From more than 15,000 facilities on the Provost Marshal General's regular inspection list, the number was reduced to less than 4,000 of the most vital plants. Total personnel savings thus realized in guards and inspectors numbered 24,000.

Accident prevention is also supervised by the Provost Marshal General. As a result of continuing safety measures, accident reports throughout the year indicated a declining incidence of injury among civilian employees at all ASF installations.

No major accident and no large attempts at sabotage have marred our war effort.

FACILITIES ON MASTER INSPECTION
RESPONSIBILITY LIST

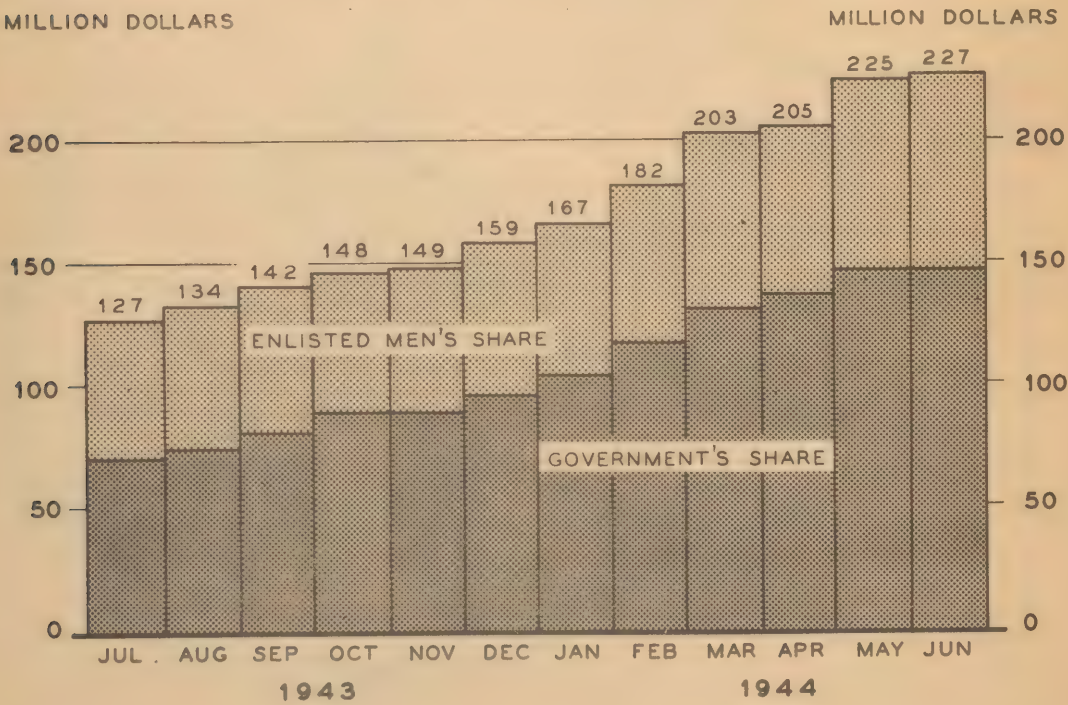


Fiscal Service

The major fiscal functions of the Army Service Forces include the payment of personnel of the military establishment; the administration of personal finances of the soldier and his dependents, as in the case of family allowances and allotments-of-pay; the payment to industry of commercial and transportation bills; furnishing aids to production, such as advance payments and guaranteed loans; and general administrative operations relating to receipts, disbursements, accounting, and auditing operations. The magnitude of these operations is indicated by the fact that Army disbursing officers paid out 52 billion dollars in 1944, an average of over 4 billion dollars a month. More than 100,000,000 checks were issued, while all enlisted men were paid in cash. In handling these enormous sums there has not been a single instance of any loss through speculation or mishandling of funds. The Army can take the greatest pride in this record.

Despite the size of the Army, 99.9 per cent of military payrolls in the United States were paid on time. The same record was achieved in the payment

FAMILY ALLOWANCES PAID



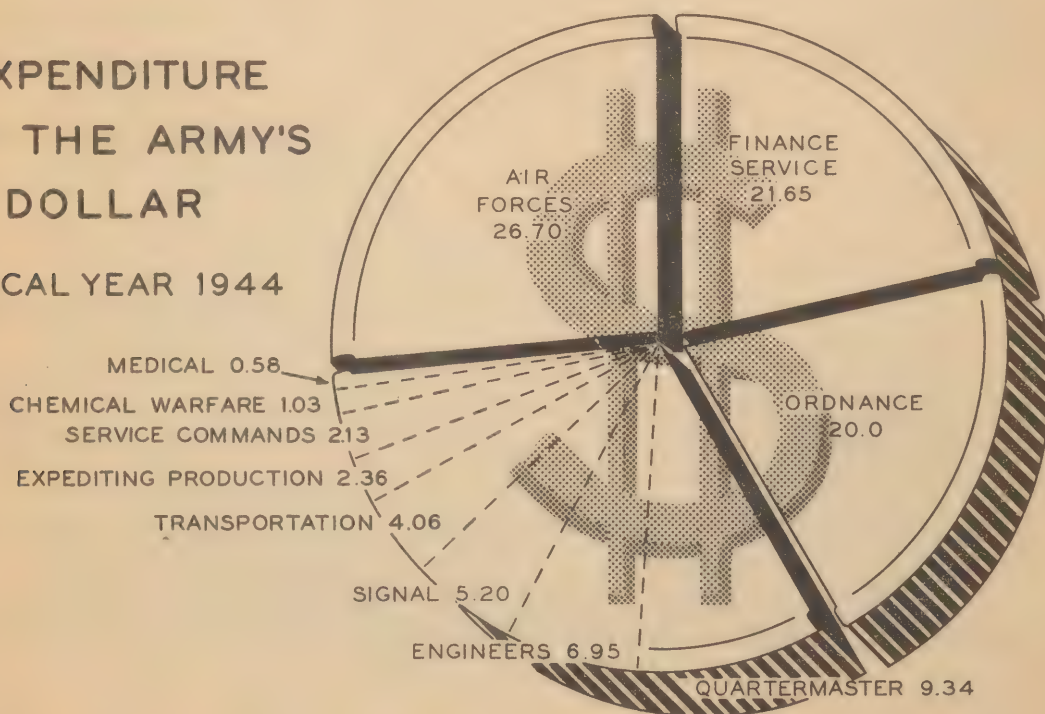
of civilian payrolls. Simplified procedures enabled the average civilian payroll supervisor to handle the payroll records of 161 employees as compared with 116 employees under former procedures. During the month of June 1944, 3,800,000 family allowance checks were issued by the Army Service Forces amounting to 227 million dollars. The government contributed 148 million dollars while the soldiers contributed 79 million. In the same month 2,300,000 voluntary allotment checks amounting to 145 million dollars were issued. All of these checks covering the regular June payment were delivered to the post office by 10:00 a.m. on 1 July 1944.

A total of 13 million commercial invoices were paid by Army disbursing officers, and another 13 million transportation bills were paid by the Finance Office, U.S. Army, in Washington, D.C. The number of unpaid bills on hand on 30 June 1944 represented less than a fifteen days' lag.

During the fiscal year, 27 cents of every dollar paid out by the Army went for Air Forces procurement, 22 cents for pay of the Army, 20 cents for Ordnance procurement, and 10 cents for Quartermaster procurement. The remainder went for all other procurement and services.

EXPENDITURE OF THE ARMY'S DOLLAR

FISCAL YEAR 1944



Personnel Records

As the Army has grown, the management of central personnel records by the Adjutant General has become a larger and larger job. The most exacting work of all has been in the notification about casualties to the next of kin. Reports in code of wounded or injured, death, and missing in action are transmitted daily to the Adjutant General from overseas theatres. Every effort is then made to insure the proper identification of the individual and his next of kin. A telegraph message is turned over at once to Western Union. This notification in all but a very few cases is sent within 24 hours of receipt of information from overseas. An agreement was made during the year with Western Union for the prompt and careful delivery of these messages to the next of kin. In many instances the address of next of kin has been changed since the soldier or officer went overseas. Some delay must then necessarily ensue.

Those persons listed as missing in action are carried as such until officially reported as prisoners of war, or until some official evidence of death is received. There is no standard policy about the length of time before a man missing in action is declared legally dead -- each case must be decided upon its individual merits. The law requires, however, that an official determination of a man's status be made at the end of one year. Once a man is reported as a prisoner of war, records are handled by the Information Bureau of the Provost Marshal General.

The number of casualty messages despatched during 1944 grew from 20,400 in July, 1943, to 78,060 in June, 1944 -- an increase of approximately 300 per cent.

Maintenance

At every post used by ground forces, the Army Service Forces maintained shops for the repair of clothing, automotive equipment, weapons, communications equipment, and other items. In addition, large base shops scattered about the country undertook major reconstruction of worn-out clothing and equipment.

As more supplies were available for use in training, and as their age increased, the repair load in Army Service Forces maintenance shops greatly expanded. In June, 1944, there was about twice as much equipment awaiting repair in base shops as in January. At the same time, the monthly output of these shops was increased 50 per cent during this same six months' period. During the fiscal year 1944 about 14 million pairs of shoes, 32 million items of clothing, and 12 million items of personal equipment were turned in to the Army Service Forces for major repair.

The maintenance of wheeled vehicles was a particularly big job during the past year. Some 85,000 vehicles were repaired in Army Service Forces shops for overseas shipments. Other repaired vehicles were returned to using units or to motor pools for reissue. Large quantities of construction equipment were returned to the United States upon completion of the Alaska Highway. The many difficulties in organizing prompt handling of the repair load were surmounted for the most part by June, 1944.

MANAGEMENT

As in industry at large, the most important single management problem confronting the Army Service Forces throughout 1944 was that of obtaining sufficient manpower, both civilian and military, to perform its many responsibilities. The personnel available to do the operating work of the Army Service Forces was more and more difficult to obtain. At the same time, the rapid expansion which had occurred between 1940 and 1943 suggested that considerable economies were possible in the better utilization of the personnel already recruited or assigned to the Army Service Forces.

Under a comprehensive and simplified scheme of personnel control, the Army Service Forces were successful in reducing their total operating personnel, both military and civilian, from 1,542,000 on 1 July 1943 to 1,308,000 on 30 June 1944. At the same time there was a 23 per cent increase in the work load of the Army Service Forces. The operating military personnel was reduced from 546,000 officers and enlisted men to 440,000.

Enlisted men qualified for overseas service were released as rapidly as possible during the year. They were replaced by enlisted personnel returned from overseas or by civilians. From 42 per cent in February, 1944, the operating enlisted personnel qualified for overseas assignment was reduced to 16 per cent in June. Some 50,000 men remained to be reassigned before 31 October 1944. By 30 June 1944 more than 45 per cent of all the civilian employees of the Army Service Forces were women.

Careful attention was given during the year to improving all aspects of personnel administration. A school was established for the training of civilian personnel administrators. Employee evaluation was stressed, and particular care was taken to insure that employees were placed in jobs appropriate to their abilities. A uniform grievance procedure for civilian employees was published at the end of the fiscal year. Civilian training was stressed in order to insure that each worker received full knowledge of his expected duties and was capable of performing them satisfactorily. All wages were standardized by 30 June 1944.

Work simplification surveys proved an effective means of handling increased work loads with fewer employees. Surveys covering the work of 62,000 people, conducted between January and June, 1944, resulted in 30 per cent personnel savings. One camp in the First Service Command developed simplified techniques for unloading supplies which saved 34 per cent of the total man hours previously required.

For example, the simplification of procedures for the discharge of patients from hospitals reduced the number of forms from 54 to 19, the number of copies from 110 to 56, and the number of signatures required from 90 to 34. Within these totals, the number of basic personnel forms alone was reduced from 54 to 6, the number of copies from 57 to 22, and the number of signatures from 30 to 12. The other forms used were medical forms and Veterans Administration forms. The number of forms and signatures were still large because of the many steps involved in discharge -- from completion of the service record to

final pay and transportation home. Whereas before this change it had taken three weeks from the time when a hospital decided a man should be discharged for physical disability to his final release, the new procedure permitted discharge within three days. At the rate of discharge for disability occurring at the end of the fiscal year, this new procedure was equivalent to increasing the hospital capacity in the United States by 10,000 beds.

Other management economies were also realized during 1944. In June, 1944, for example, each depot worker handled 55 per cent more tonnage than the average worker had handled in June, 1943. Fire prevention measures were reviewed during the year to reduce unnecessarily elaborate precautions. The fire incidence at War Department installations was about one-third of the corresponding civilian record.

In every field of activity the Army Service Forces were trying to find improved ways of doing the job. Without this effort, operating responsibilities could not have been fulfilled.

PLANNING FOR READJUSTMENT

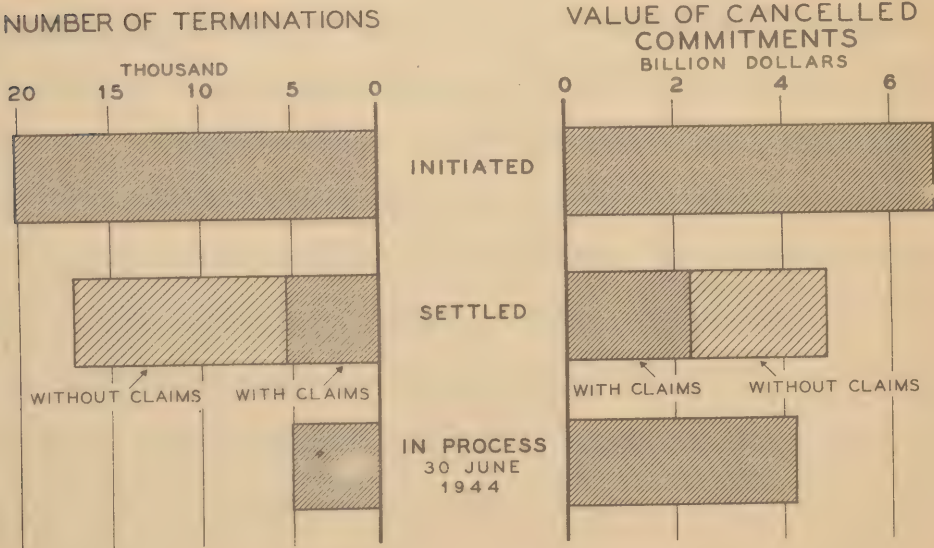
During 1944 certain phases of the work of the Army Service Forces presented problems closely akin to those which will be encountered in demobilization. For various reasons, including age and physical disability, the Army Service Forces handled the discharge of 575,000 enlisted men during the year. Simplified procedures and new arrangements for handling this job prepared the way for later operations on a larger scale.

Changes in procurement requirements necessitated the termination of many contracts. As the whole procurement program continued to expand, these cancellations were accompanied in considerable part by new contracts for other models or items. At the same time, the old contracts had to be settled. During 1944, 20,000 contracts were terminated, cancelling commitments of 7 billion dollars. In value, these cancellations were twice the entire volume of contract cancellations after World War I.

Of total cancellations up to 30 June 1944, 77 per cent of the contracts in number and 47 per cent in value had been settled by that date. The Ordnance Department in particular made a notable record in settling terminated contracts. The completion of 7,900 termination agreements by this office within one year indicated that the existing methods of settlement could be made to work on a volume basis when large-scale production cutbacks occur. The backlog in unsettled terminations declined steadily from March through June, 1944.

Another problem during 1944 was the disposal of surplus property. Some \$186,000,000 worth of surplus property was disposed of during the year. The Army Service Forces determined the property that was excess to their own needs and turned it over for actual disposition to the agencies designated by the Surplus War Property Administrator. One obstacle to the disposition of surplus property is the tendency of many supply officers to try to retain every item against some future undetermined yet possible need. In many ways they are like housewives who tuck things away in the attic for future use only to have them moulder and collect dust for years and then to be thrown away at some later housecleaning. The chief result of such action is to clutter up needed storage

CONTRACT TERMINATION STATUS
FIXED PRICE CONTRACTS
FISCAL YEAR 1944



space and to add millions to the war cost by the care and maintenance of items which will never be used. Supply officers should have public support and must not lack the courage to dispose of items without a predictable need and which, if ever needed, might be obtained at less cost later on and very likely in an improved model.

The second great handicap in property disposal is the erroneous idea that most items should be sold close to the purchase price. For articles similar to those used in civilian life this is possible, particularly at present during a period of general shortage in consumer goods. On the other hand, many military items have no other use, and perhaps half of all supply items on a tonnage basis has only scrap value. Here again supply officers need public support and courage to designate property for disposal at the best obtainable price or as scrap.

Surplus Posts

A steady decline in the size of the Army remaining in the United States resulted in closing many posts in order to achieve reduced operating costs. On 30 June 1944, 28 posts used by ground troops were inactive, and plans had been made for closing an additional 47 posts by 31 December 1944. Changes in plans for redeployment after the defeat of Germany will slow down further action in closing these stations.

An illustration of the complexity of the job of closing out a military reservation was afforded in 1944 by the abandonment of the California-Arizona Maneuver Area. Comprising a total area larger than the State of Pennsylvania, the California-Arizona Maneuver Area was set up on 25 November 1942 as a theatre of operations for training Ground Force troops. Most of the land was mountainous or desert with very little population. With the exception of small holdings, it belonged to the federal government, to the States of California and Arizona, and to the Southern Pacific and Santa Fe Railway Companies. Installations in the California-Arizona Maneuver Area included

nine divisional camps, two camps for corps troops, one special training center; three general hospitals, eight station hospitals, railway sidings, landing strips, bivouac areas, a base general depot, an Ordnance base supply and replacement depot, regulating stations, and truck and rail heads. All were operated by the Army Ground Forces.

Since the maneuver area had served its purpose, the War Department on 12 February 1944 directed the Commanding General of the Army Service Forces to take it over and dispose of all its property. The actual job was performed by the Ninth Service Command of the Army Service Forces.

Among the items collected, tested, repaired, and shipped out of the area were 308,000 gasoline and water cans, 305,898 folding cots, and 91,100 tents. Exclusive of the supplies accompanying the troops themselves, over 7,500 carloads of freight were loaded. This was enough to form a freight train 83 miles long. Of the 7,500 carloads of freight, nearly 6,000 were Ordnance supplies. Thanks to the assistance of the Army Ground Forces in the area, the evacuation was handled rapidly and in orderly fashion.

In addition to the supplies evacuated from the area, signal lines were taken down, post exchanges were closed and accounts audited, and many claims from citizens in the area investigated and adjusted. Some 270 real estate leases and agreements were terminated and turned over to the Chief of Engineers for final disposition.

The principal difficulty in evacuating the area was in finding a place to ship supplies as they were loaded. Many depots were unable to receive, unload and warehouse the property as fast as it was ready to move. Another difficulty was experienced in obtaining supplies and spare parts to repair serviceable equipment. Special machines and tools were set up in the area to accelerate the repair of serviceable property. All salvage was disposed of locally by transfer to the Procurement Division of the Treasury Department.

Certain installations in the area were transferred in their entirety to other agencies. Three general hospitals of a thousand beds each were transferred to the Navy Department. The Pamona Ordnance Base was taken over by the Ninth Service Command as one of its installations. The San Bernardino Base General Depot was transferred to the Chief of Engineers, while the Quartermaster repair shops were taken over by the Quartermaster General.

The abandonment of the California-Arizona Maneuver Area was a large-scale demonstration of the work involved in demobilization of military installations. It was used as a testing grounds for the procedures developed by the Army Service Forces. Lessons in repair and loading operations, and in arrangements for shipping gained from this experience will provide a guide for future such undertakings.

Preparations for Redeployment

Upon the defeat of Germany, the nation's war effort must be concentrated upon the defeat of Japan. Much of the military might in Europe will be transferred to the Pacific. A major part of the job of redeployment and of such demobilization as is possible after victory in Europe will fall to the Army Service Forces. When Japan is defeated, there will still be extensive work to do in achieving an orderly transition from a wartime to a peacetime military establishment.

Many plans have been made for redeployment and demobilization. As victory approaches in Europe in the current fiscal year, the Army Service Forces can anticipate only a change in the type, not a slackening in the volume, of their supply and service work.

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The activities of the Army Service Forces impinge upon those of practically every government agency. Because of their concern with the soldier as an individual and with his supply, these activities are closely linked

also with commercial and social activity on the home front. In practically all of their contacts the Army Service Forces have been fortunate in enjoying the wholehearted cooperation and friendly assistance of all agencies, and they have had the widespread and enthusiastic support of private enterprise and many individuals. Without this, Army Service Forces could never have attained the measure of success which has attended their effort.

The great war-making departments and separate agencies, the interdepartmental boards and committees, have given a tremendous impetus to those Army Service Forces activities in which they have had an interest. The shortcomings of the Army Service Forces have been noted in the main most sympathetically. Criticism has generally been helpful and constructive. All criticism has strengthened the Army Service Forces in their determination to seek the perfection they know they can never attain.

The Army Service Forces are particularly appreciative of the counsel, support, and sympathetic guidance which they have received from their superiors, the Secretary, the Under Secretary, the Assistant Secretary, and the Chief of Staff, and for the cooperation accorded by the other two major commands, the Army Ground Forces and the Army Air Forces.

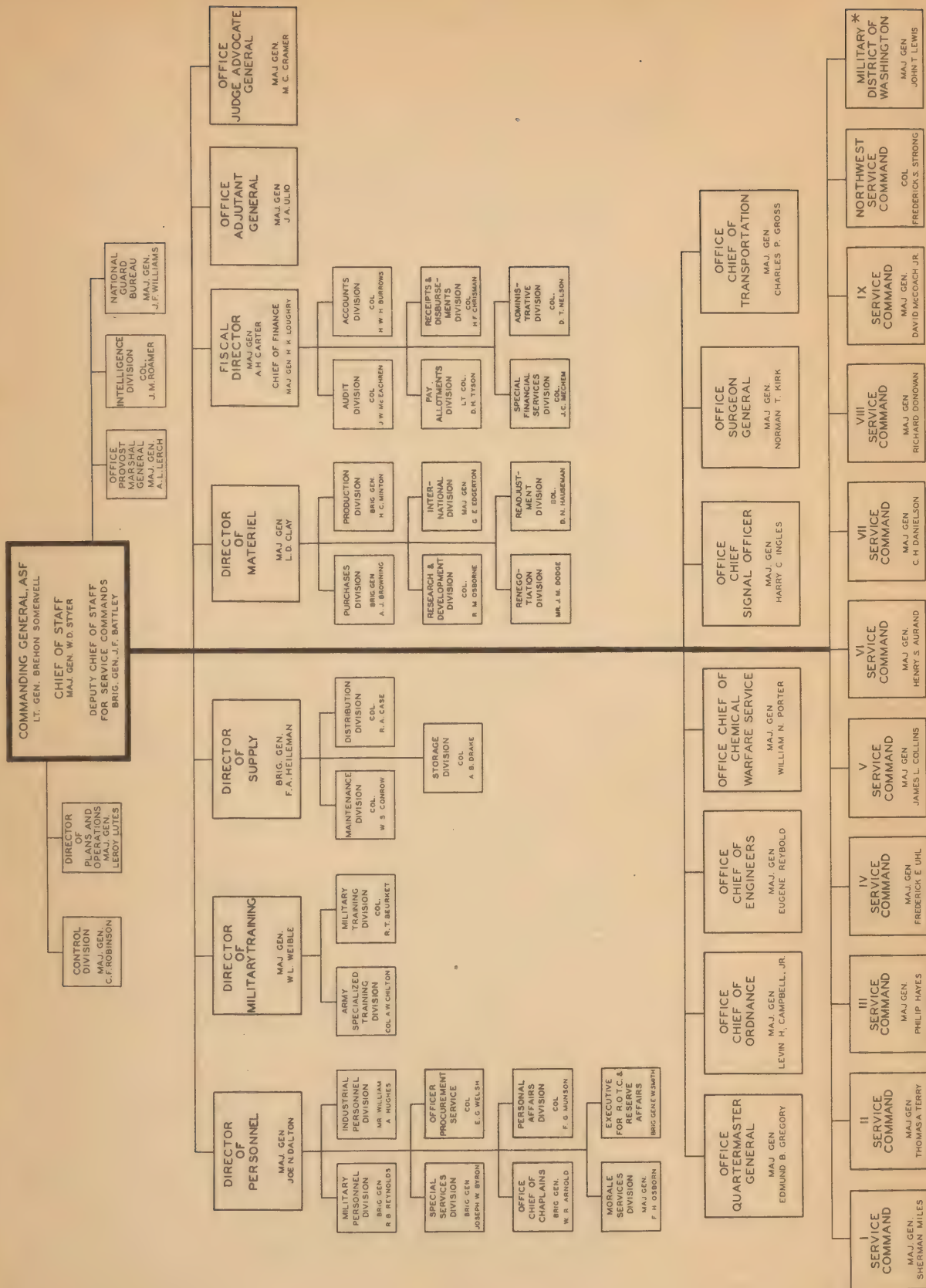
This necessarily brief account makes it impossible to give due recognition to the outstanding contributions which each and every command, service, and staff division has made to the sum total of the accomplishments of the Army Service Forces, each in itself of major assistance in winning the war.

* * * * *

But in the final analysis it is the American people who have made the supply achievements of the Army Service Forces possible. American enterprise -- executives, managers, engineers, scientists, foremen, clerks, farmers, and the millions of men.

and women who have worked in industry -- has done a magnificent job in producing supplies for military use. In the space of four short years our industrial resources have been mobilized to a degree that once seemed impossible. At present this country produces in a single day more supplies for the War Department than were produced for it in the entire fiscal year of 1940. This is a record in which the entire nation may take due pride. But it is a record that must be maintained until final victory is ours. American management and American labor must throw themselves into the emergencies that will continue to develop with the same enthusiasm and effectiveness that they showed during the more critical periods of the war. Provided the changing needs of the war and their urgency are understood by management and by labor, the result will never be in doubt.

ORGANIZATION OF THE ARMY SERVICE FORCES



* UNDER ARMY SERVICE FORCES FOR ADMINISTRATIVE AND SUPPLY FUNCTIONS

30 JUNE 1944

*As an indication of the complexity of modern war, the 130 types of service troops are listed as follows:

Chemical Warfare Service

- Chemical Processing Company
- Chemical Base Processing Company
- Chemical Laboratory Company
- Chemical Base Depot Company
- Chemical Smoke Generator Battalion
- Chemical Warfare Service Organization

Corps of Engineers

- Engineer General Service Regiment
- Engineer Battalion, **Separate**
- Engineer Port Construction **and** Repair Group
- Engineer Construction Battalion
- Engineer Dump Truck Company
- Engineer Base Topographic Battalion
 - Base Survey Company
 - Base Photomapping Company
- Engineer Parts Supply
- Engineer Special Service Regiment
- Engineer Base Depot Company
- Engineer Petroleum Distribution Company
- Engineer Heavy Shop Company
- Engineer Base Equipment Company
- Engineer Forestry Battalion
- Engineer Service Organization
- Engineer Special Brigade
 - Engineer Boat and Shore Regiment
 - Boat Battalion
 - Shore Battalion
- Engineer Special Shop Battalion
 - Power Plant Repair Company
 - Hull Repair Company
 - Salvage and Dockage Company
 - Depot Company
- Engineer Boat Maintenance Battalion
- Engineer Parts Supply Separate Platoon
- Engineer Base Depot
- Engineer Petroleum Production Depot
 - Refinery Battalion
 - Refinery Operating Company
 - Drum Plant Company
 - Refinery Maintenance Company
 - Oil Field Battalion
 - Drilling Company
 - Service Company
- Engineer Refinery Tank Construction and Pipe-fitting Company

Medical Department

- Medical Sanitary Company
- Medical Base Depot Company
- Medical Department Service Organization
- Field Hospital

Hospital Train
Medical Hospital Ship Platoon, Separate
Hospital Ship Complement
Medical Ambulance Ship Company
General Hospital
Station Hospital (17 different sizes)
Surgical Hospital
Convalescent Center
Veterinary General Hospital
Veterinary Station Hospital
Veterinary Evacuation Hospital

Ordnance Department

Ordnance Maintenance Company
Ordnance Medium Automotive Maintenance Company
Ordnance Heavy Automotive Maintenance Company
Ordnance Base Depot
Ordnance Base Armament Maintenance Battalion
Ordnance Base (Armament or Automotive) Maintenance Battalion
 Ordnance Base Armored Vehicle Maintenance Company
 Ordnance Base Artillery and Fire Control Maintenance Company
 Ordnance Base Small Arms Maintenance Company
Ordnance Base Automotive Maintenance Battalion
 Ordnance Base Automotive Maintenance Company (Engine Rebuild)
 Ordnance Base Automotive Maintenance Company (Power Train Rebuild)
Ordnance Motor Vehicle Distributing Company
Ordnance Tire Repair Company
Ordnance Motor Vehicle Assembly Company (Portable)
Ordnance Base Depot Company
Ordnance Service Composite Organization

Quartermaster Corps

Quartermaster Truck Company, Heavy
Quartermaster Service Company
Quartermaster Gasoline Supply Company
Quartermaster Remount Troop
Quartermaster Bakery Company
Quartermaster Sales Company, Mobile
Quartermaster Laundry Company, Semimobile
Quartermaster Sterilization Company
Quartermaster Salvage Collecting Company
Quartermaster Refrigeration Company, Fixed
Quartermaster Depot Company, Supply
Quartermaster Salvage Repair Company (Semimobile)
Quartermaster Refrigeration Company, Mobile
Quartermaster Fumigation and Bath Company (Mobile)
Quartermaster Graves Registration Company
Quartermaster Salvage Repair Company (Fixed)
Quartermaster Large Drum Manufacturing Company
Quartermaster Base Depot Company
Quartermaster Base Petroleum Supply Company
Quartermaster Base Depot Supply and Sales Company
Quartermaster War Dog Platoon
Quartermaster Service Organization

Quartermaster Service Organization, Petroleum Products
Laboratory

Signal Corps

- Signal Heavy Construction Battalion
- Signal Service Organization
- Signal Base Maintenance Company
- Signal Base Depot Company
- Signal Intelligence Service Detachment (5 types)

Adjutant General

- Replacement Depot
- Adjutant General's Machine Records Unit
- Adjutant General's Machine Records Unit (Mobile)
- Base Post Office
- Army Post Office, General Assignment

Finance Department

- Finance Service Organization

Military Police

- Military Police Escort Guard Company
- Military Police Battalion
- 240th Military Police Battalion (Special)
- Military Police Prisoner of War Processing Company
- Military Police Service Organization

Transportation Corps

- Amphibian Truck Company
- Army Marine Ship Repair Company
- Headquarters, Major Port (Oversea)
- Port Battalion
- Headquarters, Medium Port (Oversea)
- Staging Area Company
- Headquarters, Railway Grand Division
- Railway Operating Battalion
 - Electric Power Transmission Company
 - Maintenance of Way Company
 - Maintenance of Equipment Company
 - Transportation Company
- Railway Shop Battalion
 - Erecting and Machine Shop Company, Railway Shop Battalion
 - Boiler and Smith Shop Company, Railway Shop Battalion
 - Car Repair Company, Railway Shop Battalion
- Base Depot Company
- Headquarters, Military Railway Service
- Transportation Corps Service Organization
- Transportation Corps Traffic Regulations

Sturley